

# CALIFORNIA STATE BOARD OF HEALTH

## MONTHLY BULLETIN

Vol. 11

SEPTEMBER, 1915

No. 3

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THE STATE OF OHIO

IN SENATE

JANUARY 1881

REPORT OF THE

COMMISSIONER OF THE LAND OFFICE

IN RESPONSE TO A RESOLUTION

PASSED BY THE SENATE

AT ITS SESSION ON

DECEMBER 15, 1880

AND

AT THE SPECIAL SESSION

HELD AT COLUMBUS,

OHIO, JANUARY 18, 1881

BY

JOHN W. FULTON,

COMMISSIONER OF THE LAND OFFICE

AND

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COMMISSIONER OF THE LAND OFFICE



# MONTHLY BULLETIN

## CALIFORNIA STATE BOARD OF HEALTH

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Devoted to the Prevention of Sickness and Death

Sent free, on request, to all citizens of California

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☐ Entered as second-class matter, August 15, 1905, at the post office at Sacramento, California, under the Act of Congress of July 16, 1894.

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WILBUR A. SAWYER, M.D., Secretary and Executive Officer . . . Editor  
GUY P. JONES, Morbidity Statistician . . . Associate Editor

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### More Strength for the Fight Against Tuberculosis.

The appointment of Dr. Robert A. Peers of Colfax to membership in the State Board of Health brings to the deliberations of the Board invaluable counsel, especially in matters pertaining to the campaign against tuberculosis. A long experience in the treatment of tuberculosis and special interest in its prevention, together with a deep appreciation of the sociological and economic aspects of the tuberculosis problem, give to Dr. Peers an unusual opportunity to participate in organizing the Bureau of Tuberculosis on the highest plane of efficiency. He will share the great responsibility which rests on the Board in supervising the distribution of the State subsidy to county tuberculosis hospitals, so that the greatest possible benefit will accrue through the prevention of new cases of tuberculosis and the cure of a large proportion of those already infected.

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### A New Secretary of the Board.

For nearly two years, Surgeon Donald H. Currie, on leave of absence from the United States Public Health Service, has acted as Secretary and Executive Officer of the State Board of Health, and has given the Board the benefit of his valuable experience in the control of preventable diseases. On August 31st he resigned in order to return to duty in the Public Health Service. The vacancy on the Board was filled through the appointment by Governor Johnson of Dr. Wilbur A. Sawyer, for over five years Director of the Bureau of Hygienic Laboratory in Berkeley. At the meeting of the Board held on September 4th Dr. Sawyer was elected Secretary.

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### Warning to Auto Campers.

Camping is one of the greatest pleasures of life in California and with the increased use of automobiles during the present year, there came a corresponding increase in the number of campers. Time was when all automobilists stopped at summer resorts, but that was before the man of average means could afford a motor car. Proprietors of summer resorts in all parts of California now complain because, in spite of elaborate plans for entertaining motorists, they whirl past, without stopping to partake of "mine host's" hospitality at the prevailing summer rates. Hundreds of them may be seen, however, encamped along the road, wherever



abundant water and shade may be found. During a single month of the past summer, 2,610 machines passed a given point along a popular mountain road. If each car carried an average of three occupants, it is probable that 5,000 persons camped beside the highway during that single month.

Since a spot near a running stream is nearly always selected for a camping site, the question of whether or not these campers de luxe observe ordinary rules of sanitation is of considerable importance to the State. Unless care in preventing the pollution of streams is observed, and unless all refuse is either burned or buried, there is a good chance that a favorite camping spot may become a source of disease dissemination. Every physician in a large city knows that cases of typhoid fever in persons who have but recently returned from a summer vacation, appear regularly every year. It is always a difficult matter to trace the source of infection in these cases, particularly if the patient's travels have been at all extensive. The State Board of Health warns automobile campers, as well as all campers, to exercise care in camp sanitation, always to leave camps as one would desire to find them, never to drink water, without boiling, from a running stream, unless sure that it is not contaminated, and to co-operate in every possible way in keeping clean the wonderful playgrounds of California and of America.

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**Water-borne  
Typhoid Fever.**

In this issue of the Bulletin appears the first report of the Bureau of Sanitary Engineering. Under Mr. Chester G. Gillespie, Chief Engineer and Director, the bureau has already begun the work of supervising public water supplies and sewage disposal plants.

This bureau has in its power almost to eliminate water-borne typhoid fever from California and thereby to make a marked reduction in the death rate from typhoid fever.

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**The Care  
of Lepers.**

Leprosy and the care of lepers in California is fast becoming a problem, and the present law providing for the care of cases by the county is inadequate, and almost impossible of enforcement. The disease is focused at three points in the United States—among Scandinavians in the region about the Great Lakes, on the Gulf Coast, particularly in Louisiana and Florida, and among Mexicans, Chinese and Japanese on the Pacific Coast. Federal care of these cases is a necessity and a bill making such provision will be introduced in the next Congress. A discussion of the urgency of the need will be found in this edition of the Bulletin. It is time that the public should take a serious interest in the care of those who are suffering from this ancient and dread disease. They are wanderers, universally shunned. It is inhuman and un-American that these unfortunate and dangerous persons should roam from city to country and from country to city while in their pitiable condition—a menace to the public health and an eyesore to all. A record of the experiences of Juan Rivera, who escaped time and again from county institutions, wandering from place to place, inspiring fear in the residents of the towns he visited, and the story of his final escape and death is printed upon other pages of this Bulletin.



**Rural Schools Need Attention.** Rural school sanitation is one of the most important problems in public health. The sanitation of city schools has received much attention recently and in the newer buildings even shower baths and plunges are being installed, together with every conceivable practical device for improving the health of pupils. Medical inspection has been of great value in the control of communicable disease and in the correction of defects which may seriously affect the future of the individual. Unfortunately, rural schools cannot have all of the equipment and service that city schools can afford, but there is a growing disposition upon the part of health officers, school boards and interested citizens to aid in the improvement of sanitary conditions in rural schools. Dr. Margaret Schallenberger, Commissioner of Elementary Education, recently visited San Benito County, where Mr. W. J. Cagney, county superintendent of schools, conducted a clean-up campaign previous to her arrival. The results accomplished were so thoroughly satisfactory that Dr. Schallenberger is endeavoring to encourage other county superintendents to adopt similar campaigns.

Dr. J. L. Pomeroy, Health Officer for Los Angeles County, is also deeply interested in the sanitation of rural schools. In this number of the Bulletin will be found a paper by him, presented at the Annual Conference of Health Officers, recently held in Oakland. Dr. Pomeroy is specially interested in the control of communicable disease in the country schools and plans to co-operate vigorously with the Los Angeles county superintendent of schools, Mr. Mark Keppel, in securing definite results. He advocates summer schools for teachers upon sanitation, hygiene and kindred topics. The State Board of Health is interested in every movement that will help improve conditions in rural schools, whether it be the establishment of open air buildings, better lighting and ventilation, improvements in sewage disposal and water supplies, control of disease, or any other feature of school hygiene.

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**Migratory Tuberculosis Cases Endanger Public.** Federal control of migratory cases of tuberculosis occupied the attention of the last Congress and will, in all probability, be again considered at the next session. It is estimated at the present time that there are one hundred and fifty thousand non-resident cases of tuberculosis in New Mexico, Arizona, and southern California. A very large proportion of these cases is indigent, the financial burden for the care of whom falls upon many small counties and cities. The town of Sierra Madre in southern California, with about thirteen hundred inhabitants, was called upon to care for seventy-five indigent tuberculosis cases during a single winter. The financial burden involved is far too great for any small city to bear. Riverside and San Bernardino counties have had to care for a much larger number of such cases than is just. Los Angeles County and city, for all of the wealth at their disposal, have had real problems in caring for the vast numbers of non-resident cases that have flocked to that part of the State.

The attention of the State Board of Health has been called to the great need of securing Federal legislation which may afford relief to the southwestern states, including southern California particularly,



and the Board is co-operating with those who are interested in such legislation in order that sufficient means may be adopted in providing care for indigent cases in the great Southwest.

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**Health Officers Hold Annual Conference.** Health officers of California met in their annual conference, held in conjunction with the annual meeting of the League of California Municipalities in Oakland, September 7th to 10th. The sessions were of unusual interest and many valuable papers were presented. These will be printed in the Monthly Bulletin of the California State Board of Health. In this issue appear "Malaria Control," by Senior Surgeon C. C. Pierce, of the United States Public Health Service, San Francisco, and "The Sanitation of the Country School," by Dr. J. L. Pomeroy, Health Officer for Los Angeles County. The 1916 conference of state, county and municipal health officials will be held in Visalia.

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**Demand Isolation of Diphtheria Carriers.** Diphtheria carriers have caused considerable trouble to health officers in all parts of the State, partly due to the fact that the disease has been more prevalent in 1915 than in previous years. Parents of children who have been placed in quarantine because the bacilli could be demonstrated in their throats, have objected seriously to the isolation of their children, who, to all appearances, were perfectly well. Some of the objections to the regulations for the prevention and control of diphtheria issued by the State Board of Health August 1, 1914, have been criticised, and attempts have been made in certain municipalities to enact local ordinances in exact contravention to the purposes of the State Board of Health regulations. In order that the public health may be fully protected, the State Board of Health insists that its regulations be enforced, and at its meeting held September 4, 1915, Rule 11 of the before mentioned regulations was amended, the first sentence to read, "Any person who has been free from symptoms of diphtheria for a month or longer and who harbors diphtheria bacilli is a diphtheria carrier and is hereby declared to be a menace to the public health." Following is the remainder of the text of Rule 11: Any known or suspected diphtheria carrier shall be reported to the local health authority, who shall investigate and report to the State Board of Health. Pending the receipt of instructions from the State Board of Health, the local health authority shall isolate or quarantine the carrier if in his judgment the danger to the community necessitates such action. In the event of any known or suspected carrier leaving the jurisdiction of a local health authority, the State Board of Health shall be notified by the local health authority of the name of the carrier and his destination.

NOTE 1.—On receipt of the report required by Rule 11, or after further investigation in the field or in the laboratory, the State Board of Health will make such individual rulings as may seem necessary to minimize the danger to the community from the carrier.

NOTE 2.—In most instances it will only be necessary to instruct diphtheria carriers regarding avoidance of those occupations, habits, and contacts which would facilitate the transfer of infection. Carriers who are found to be especially dangerous may need further restriction. The ultimate decision will be made by the State Board of Health.



NOTE 3.—Local health authorities should take cultures from the noses and throats of carriers at frequent intervals, so that it will be known when the persons cease to be dangerous.

NOTE 4.—Ordinarily in the absence of an epidemic of diphtheria, about three per cent of the persons in the community are diphtheria carriers. In the presence of an epidemic, the number may rise to 18 per cent or higher, and these carriers are responsible for the continuation of the epidemic. Of similar importance are the large number of missed cases, who do not show the typical lesions of diphtheria, but have inflammation of the nose or throat, due to the diphtheria bacillus. Such cases are only recognized by cultural tests, and, when diphtheria is prevalent, cultures should be taken from all sore throats and from all contacts, so as to interrupt the epidemic by detecting and controlling the greatest possible number of carriers and missed cases.

NOTE 5.—Cultures from a carrier may be intermittently positive, and therefore he may not be discovered through a single laboratory test. For this reason the results of thorough field investigations are important. Field investigations, moreover, may bring evidence that a carrier is actually infecting other persons, and is, therefore, especially dangerous. (See Directions for Conducting an Epidemiological Investigation of Diphtheria.)

NOTE 6.—While diphtheria antitoxin is invaluable in the treatment of diphtheria, it is not of value in clearing up diphtheria carriers.

NOTE 7.—By requiring the reporting of the removal of contacts and carriers from the jurisdiction of one local health authority to that of another, as required by Rules 8 and 11, the State Board of Health intends to secure information to be transmitted to local health authorities for their use in preventing the spread of diphtheria. Upon receipt of information from the State Board of Health that contacts or carriers have moved into his jurisdiction, the local health authority should proceed as if they had been originally under his jurisdiction.

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#### Leprosy Among Spanish War Veterans.

It is a noticeable fact that many cases of leprosy in white persons living in the United States are in veterans of the Spanish-American War, who served in the Philippines, where there are from five thousand to six thousand lepers. These men served their country well during time of war. Do they deserve to be passed from one county to another, despised and loathed? Are they not entitled to decent care by the Government, for whose cause they offered their lives in war time?

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**"Membranous Croup"** Many years ago, before diphtheria had become an **Obsolete Term.** recognized as a separate disease, and long before the diagnosis was commonly confirmed by taking cultures, this disease was often called "membranous croup." As physicians learned modern methods of diagnosis, the number of deaths reported in California as due to "membranous croup" diminished rapidly. Last year only 19 deaths from "croup" were reported, while 249 deaths from diphtheria were recorded. "Membranous croup" is diphtheria, and use of the obsolete term is a sign of ignorance or an attempt to evade legitimate quarantine through obscuring the cause of illness. The Health Officer of Santa Clara County has just reported a fatal case of laryngeal diphtheria in which the diagnosis of "membranous croup" was made. As a result, antitoxin was not given and the child died, in all probability paying the penalty of some one's mistake with its life. In the "Physicians' Pocket Reference to the International List of Causes of Death" issued by the United States Bureau of the Census, the use of the term "croup" as a cause of death is condemned as follows:

"'Croup' is a most pernicious term from a public health point of view, is not contained in any form in the London or Bellevue nomenclatures, and should be entirely disused. Write Diphtheria when this disease is the cause of death."



## A NATIONAL LEPROSARIUM.

By GUY P. JONES, Morbidity Statistician and Associate Editor.

For two years Juan Rivera, a leper, roamed from Los Angeles to San Francisco and from San Francisco to Los Angeles, terrorizing the communities of the San Joaquin Valley and worrying officials of many counties lying between these two cities. Rivera's wanderings form interesting history. He first entered the Los Angeles County Hospital in November, 1913, where he remained a short time, appearing next in San Francisco County Hospital, from which institution he escaped in June, 1914, telling his associates that he would be back in time for the opening of the Panama-Pacific Exposition.

He next appeared in the Los Angeles County Hospital in July, 1914, escaping shortly thereafter, making an appearance in Visalia, where he was kept for a few weeks, after which he proceeded to Fresno. Here he was treated especially well so as to induce him to keep in bounds without the employment of guards. After keeping him for several weeks, while endeavoring to secure the consent of the Los Angeles County supervisors to arrange for his return under the Indigent Act of 1901, he is said to have finally been placed in an automobile at night and driven to Los Angeles, where he was placed upon the county hospital grounds, without ceremony. In June, 1915, he made his reappearance in Fresno County, but at this time his case had advanced to such a degree that his condition was most pitiable. He was removed to a tent on the county hospital grounds where he lived for about a week before his death.

Rivera was a Mexican who had been in the United States for nearly four years, but during that time he had traveled through several western states, demanding food and shelter wherever he went, threatening exposure of citizens to leprosy unless his demands were complied with, and he did not demand common fare. Luxuries were none too good for him, and needless to say, he got them. When he tired of a place he moved on. If San Francisco was too cold, he journeyed to Los Angeles.

### A Country-Wide Wanderer.

Several years ago a leper who is affiliated with railroad organizations was confined in the San Francisco county hospital. He escaped, and had no difficulty in making his way to St. Louis, where he presented himself to the health authorities for care. He managed to escape from there and was next heard of in Washington, D. C. Within the last few weeks he has escaped from the Isolation Hospital of the District of Columbia and is supposed to be traveling toward San Francisco and the exposition. This patient is a typical case for confinement in a national leprosarium, for he is constantly violating the Public Health Service regulations concerning interstate transportation of lepers. Although he is an American citizen he is a constant menace to the public health and should be effectually confined.

There have been several cases of leprosy confined in the San Bernardino County Hospital, but according to the county physician they broke down the doors of the jail where they were detained, and escaped. Appeals were made to San Francisco health authorities, to the State



and to the Federal government to care for these lepers, all of whom were Mexicans. Of course, San Francisco was not concerned in the matter, the State had no place for them, nor had the Federal government. There should have been a national leprosarium to provide for their care.

A railroad laborer, a Mexican, was recently sent by the railroad physician in Sacramento to the company's hospital in San Francisco for diagnosis. It was established definitely that the man was suffering from leprosy and he was held in the company's hospital while the San Francisco health authorities were notified of his presence. They refused to accept him, for the reason that he was not a legal resident of San Francisco. The railroad company then sent the patient to Sacramento County where he was received by the county health officer and placed in quarantine, according to the law, upon the county hospital grounds. He escaped after a few days and nothing has been heard of him since.

Of the thirty-three lepers in California January 1, 1914, twelve were Chinese, ten Mexicans, three Greek, three Americans, one Japanese, one Hawaiian, one Australian, one Italian and one Turk. It seems that more cases of leprosy are being discovered among the Mexicans than ever before. This is probably due to the increased migration into the United States since the troublous times in Mexico. Chinese and Japanese lepers have always been represented in California in greater numbers than most other foreigners.

#### No Facilities in Counties.

Since most counties are without facilities for caring for these cases, it being necessary to use special quarters and to employ special guards for their detention, and in view of the fact that nearly all cases of leprosy in the United States are in persons of foreign birth and that the status of their legal residence and citizenship is nearly always a matter of doubt, it would appear that they are more properly charges upon the Federal government than upon the State. At the present time the one Federal regulation pertaining to lepers is that of their transportation from one state to another. Article 3, General Regulations of the United States Public Health Service, amended May 15, 1912, reads as follows:

Paragraph 9. Common carriers shall not, under authority of paragraph 8, accept for transportation nor transport in interstate traffic any person suffering from or afflicted with leprosy unless there has been obtained from the Surgeon General of the Public Health and Marine Hospital Service or his accredited representative a permit stating that said person may be received under such restrictions as will prevent the spread of the disease, and said restrictions shall be specified in each instance; *provided*, that, in addition to the above, permits shall also be obtained from the health authorities of the states, territories, or districts to and from which the patients intend to travel.

Paragraph 10. No person knowing or having reason to believe that he is a leper shall accept transportation nor engage in travel in interstate traffic unless permits have been obtained as set forth in the preceding section, and unless said person shall have agreed in writing to comply with the restrictions as specified in the permits mentioned above.

Paragraph 11. Any person who presents symptoms of leprosy and who is traveling or who has left the state where he resides, in violation of the above regulations, shall be detained, and if proven to be a leper shall be returned to such state or removed to such Federal quarantine station as the Secretary of the Treasury may designate and the proper health authorities notified.

Paragraph 12. Compartments or places in cars, vessels, or conveyances operated in interstate traffic and that have been occupied by persons afflicted with leprosy shall be immediately closed after being vacated by the patient and so kept until after proper disinfection.



Dr. George E. Ebright, president of the California State Board of Health, has recently investigated the problem of leprosy in California. Following is his report to the State Board of Health in the matter:

"Inasmuch as the question of a national leprosarium will be again presented to the Congress of the United States in the approaching session, I have taken it upon myself to investigate the problem of the care of lepers in the State of California that it may be considered in relation to any possible action upon the part of the Federal government. From communications at hand, it appears that there are three lepers confined in the county hospital of Los Angeles County and thirteen in San Francisco County. This number has varied from time to time. It appears that all of the cases of leprosy observed in California have been contracted outside of the State of California, in practically every instance outside of the United States, so that it is fair to consider that all cases of leprosy in the State are foreign importations.

#### Deportation Seldom Possible.

"Under the law as it now stands, each county is responsible for the care of any case of leprosy occurring within its boundaries. Although the law also provides for the deportation of aliens so afflicted to their own country, the obstacles in the way of accomplishing this are such as to make it practically impossible. For instance, the incubation period of the disease is so long that the time for deportation may have transpired before the development of the disease. Again, misleading statements on the part of the patient and the lack of facilities for tracing their wanderings previous to their apprehension by public health authorities make deportation impossible. It is not possible, although the Federal Government maintains a leper colony at Molokai, to transport cases from the United States to the Hawaiian Islands.

"In the State of California there are leper colonies only in connection with the San Francisco Isolation Hospital and the Los Angeles County Hospital. When a case occurs in any other county, in order to properly care for such a patient, the county is put to an unusual and unwarranted expense. In regard to accommodations, moreover, for the proper care of leper patients either in San Francisco or Los Angeles the facilities are inadequate to the extremest degree. The surroundings of the hospital are in the first place most unsatisfactory and the facilities for personal care of the patient are decidedly primitive to say the least. The unfortunate situation that exists in the State of California regarding the care of these deplorably unfortunate people is well exemplified in the recent case of Juan Rivera, a wandering Mexican leper whose escapes from and commitments to various hospitals have occurred regularly for more than a year. He had been in the United States four years and was confined about a year ago in the Los Angeles hospital from which he promptly escaped and traveled through most of the counties of the southern part of California and through the states of Utah and Nevada, appearing in Fresno in November, 1914. From that place it is alleged he was placed in a specially lined automobile and driven to the Los Angeles hospital



and delivered into the institution before they were aware that he was being returned. Rivera remained in the hospital for three months when he again escaped and made his appearance in San Francisco where he was placed in the leper hospital. However, finding the climate too cold for his comfort, he escaped and as far as I can learn made his way back to Los Angeles and was there again confined. However, not remaining there very long he again escaped and in the spring of 1915 appeared in Fresno County causing consternation by his presence and widespread sympathy for his pitiable condition. He was placed in detention by the authorities at Fresno who appealed to the State Board of Health to have him taken charge of by the State. Under the law, however, the State has no authority in the matter except to demand of the local authorities that he be rigidly quarantined. It is easy to see from the above that the obligations of the various counties in this regard are not being very strictly enforced. The situation at this time was briefly this: Legally Fresno County was liable for his proper care and confinement, morally, if any county in the State can be held responsible for his care, although he was not a resident of any particular county, it might be urged that his proper place of confinement was Los Angeles County, as he had first appeared there. From a practical standpoint, however, neither of these views of the situation offered a proper solution of the problem. The president of your Board after conferring with the authorities in San Francisco found that they would stand upon their legal rights in the matter and refuse to accept the patient. He then asked Dr. Currie to communicate with Mr. Roseberry, attorney for the Board in Los Angeles, with the result that Los Angeles County in view of the lack of facilities in Fresno County and the pitiable condition of the patient agreed to receive and care for him—very much to their credit. While these negotiations were in progress, the patient died.

#### **Solution in Federal Leprosarium.**

“I, therefore, take the liberty, in order to bring about what appears to be the best solution of the problem, of suggesting that the California State Board of Health, through the proper channels, represent to the Congress of the United States that the care of lepers should be in charge of the United States Government rather than that of the various states and that Congress be urged to establish, presumably preferably under the United States Public Health Service, such colony or colonies for lepers as may be necessary to meet the situation, for the following reasons: It is a hardship and an injustice to expect the various counties to be at all times prepared for the care of lepers, inasmuch as the number of lepers is very few in any one county and the cost of their care and maintenance is high compared with other patients. Moreover, it is not feasible to await the appearance of a leper before building a suitable hospital for his confinement. It is not necessary to dwell upon the importance from the standpoint of public health for strict segregation and quarantining of all cases of leprosy. Again, inasmuch as practically all cases of leprosy occurring in the State of California are persons who have come from either other states or foreign countries,



the question is more properly one for the consideration of the United States Government than for the State government.

"The question as to the number of leprosariums to be established has many angles and can only properly be left to the judgment of the United States Public Health Service."

#### Report of Leprosy Committee.

A committee on leprosy, consisting of Dr. Edward F. Glaser, chairman, Dr. F. F. Gundrum and Dr. Donald H. Currie was appointed at one of the recent meetings of the State Board of Health. The following report and resolutions of this committee were adopted unanimously at the September meeting of the Board:

The status of the problem of leprosy in the State of California is briefly as follows: There are, at the present time, eighteen lepers confined in various hospitals in this State, chiefly in the larger cities. It appears that all of the cases of leprosy in California have been contracted outside of the State and in practically every instance outside of the United States, so that it is fair to consider that all lepers are foreign importations. Under the California law, each county is responsible for the care of any case occurring within its boundaries. Although the law also provides for the deportation of aliens so afflicted to their own country within a comparatively short period after their emigration, the obstacles in the way of accomplishing the deportation are such as to make it practically impossible. For instance, the incubation period of the disease is so long that the time exemption for deportation may have transpired before the development of the disease. Again, misleading statements on the part of the patient and the lack of facilities for tracing their wanderings previous to their apprehension by public health authorities make deportation impossible. Although the United States maintains a leper colony at Molokai, it is not possible to transport cases occurring in the United States to the Hawaiian Islands. Isolation leper hospitals are maintained in only two counties of the State. Whenever a case occurs in any other county, in order to properly care for such a patient, the county is put to an unusual and unwarranted expense. In other words, if a leper appears in California, except in two counties, he must necessarily await the construction of an entire hospital before he can receive proper care. The only alternative is that each county should, under the present law, maintain a well-equipped leper hospital for which in most cases there would never be an occupant. If leprosy were indigenous to the State, it would be logical to maintain a state leprosarium. However, inasmuch as all lepers occurring in the State are importations, the problem becomes properly one for the attention of the United States Government rather than the individual state.

Again, leprosy being a contagious and communicable disease, the only means by which its complete eradication may be expected is a rigid quarantine of each case in a proper hospital.

In view of these facts your committee respectfully submits that the care of lepers occurring in the State of California should properly be in the hands of the Federal Government and that the Federal Government should be urged to take steps toward the establishment of a national leprosarium or leprosaria presumably under the charge of the United States Public Health Service as may be under the circumstances required.

*Be it resolved*, That inasmuch as it is the opinion of the California State Board of Health that the existing law requiring each county adequately to care for lepers occurring within its confines is practically impossible of proper execution, and especially as all lepers occurring within the State are importations into the State chiefly from foreign countries, that the report of the committee be transmitted to his Excellency the Governor of the State and to the representatives in Congress of the State of California, urging that their influence be used toward the establishment of a federal leprosarium under the Public Health Service of the United States; also,

*Be it resolved*, That this communication and report be sent to the Board of Health of each State and that they be respectfully asked to co-operate toward the establishment of a national leprosarium; further,

*Be it resolved*, That a copy of this report and these resolutions be transmitted to the Surgeon General of the United States Public Health Service at Washington, D. C.



## THE SANITATION OF THE COUNTRY SCHOOL.\*

By DR. J. L. POMEROY, Health Officer, Los Angeles County.

Difficulties of various kinds exist in the management of the preventable diseases in our public schools even under the most advantageous circumstances. When one is confronted with a rural school problem we have not only the same difficulties that exist in the city school but likewise those that are peculiar to rural conditions in general. The time was when the conditions which favored a long life and freedom from disease existed more extensively in rural districts than elsewhere. With the growth, however, of modern sanitary methods, life is not only in some respects safer in the cities, but the development of those functions of society which lend aid to the needy, the sick, and the suffering has reached such a degree of perfection that now the city dweller is more than ever fortified against accident or misfortune. One of the greatest problems of the day is to apply in rural districts the sanitary knowledge and sanitary science that now obtains in most urban communities. Ideas percolate slowly in scattered hamlets. One often meets a high degree of mental inertia, and the very distances themselves from centers of great activity are an obstacle.

The situation in regard to Los Angeles County is as follows: We have about 123 country schools, ranging in daily average attendance from 5 to 269 pupils. The total number of pupils is about 7,000. The farthest school from Los Angeles city is at Manzana, consisting of eleven pupils, and is 123 miles distant. The total area of Los Angeles County is something like 4,000 square miles, over 3,000 of which is under cultivation or occupied by people. It can readily be seen that here we have a very difficult problem to apply the modern principles of the control of contagious disease.

A further confusing element is the fact that in some territories the schools and pupils are under the administration of Los Angeles city, but for health administration come under the County Health Office. Pupils who live in the city of Los Angeles attend schools which are located in the county, and likewise, there are pupils who live in the county and attend schools located in Los Angeles city. Furthermore, there are some small schools run in connection with homes and institutions of various kinds for boys and girls.

### Value of Medical Inspection.

On account of the varied conditions of service, it is impossible at the present time to adopt uniform regulations concerning preventable diseases which would conform with those of Los Angeles city. In some instances it is not to be denied that where adequate medical inspection of school children does not exist, measles and whooping-cough rapidly spread through the entire school clientele. As Health Officer of the city of Monrovia where school inspection is not maintained by the school board, I have seen in a few weeks' time a kindergarten class of some twenty-seven pupils rapidly disintegrate, owing to the spread of whooping-cough through its individual members. Under such conditions, the school becomes an actual disseminator of contagious diseases.

\*Read at the annual conference of state, county and municipal health officers, held at Oakland, September 7-10, 1915.



This remark is not an indictment of any particular school board. At the same time, it can not be too strongly emphasized, that serious results often follow such infections as measles, whooping-cough, and similar diseases of childhood. As it so happened, my own youngster attended this kindergarten class above mentioned. He became infected with whooping-cough, lost six weeks of schooling, and in two years past has never been as well as before the attack. A member of my household got the disease from him, contracted pneumonia, and the total expense of this illness has since run into several hundred dollars.

I have lived in institutions where we handled hundreds of cases of contagious disease; where every one was under the same discipline, and where we could protect ourselves from infection to a very great extent. But how, I ask, can a parent protect his child from a contagious disease in the common school where a school board is unwilling to maintain the expense of medical inspection. If the State law compels us to send our children to school, then that same law should safeguard the health of that child when he is in school.

The situation becomes even more difficult where we have mixed schools, such as Mexicans, negroes and white children, and the surveillance of the home conditions of the Mexicans and the negroes is very imperfect. Practical illustrations of the results of such conditions are entirely unnecessary to any health officer, or any person familiar with sanitary work.

#### Morbidity Reports Meager.

What are we to do in a county consisting of 3,000 square miles of territory, with country schools scattered as far as 123 miles away, and how are we to devise some method of sanitary supervision over these 7,000 school children? That something of a very definite character should be done can be seen from a brief abstract of report 1913-1914 of the preventable diseases, handled in the County Health Office, as follows:

Measles	18
Chicken-pox	10
Mumps	1
Diphtheria	90
Scarlet fever	66
Whooping-cough	4

Out of a population of 7,000 school children of school age, such an incidence of contagious diseases as is given above shows the fact that at the present time these diseases are not reported except in a most meager way. With such meager reports it is impossible to calculate the true loss to the community which takes place from these preventable diseases. Neither can we plan conservation work unless we get a better system of reporting.

#### Plans Co-operation With Schools.

Therefore, the first step which I propose to take in regard to this school problem is a plan of co-operation through the county school superintendent's office, and the personnel of the individual schools. Through the courtesy of the county school superintendent, I propose to issue to the 267 teachers in our county school system a pamphlet of instructions regarding the contagious diseases.



Second: I propose to give a series of lectures and talks to the teachers, which may result in the establishment of a summer school for teachers on sanitation and related problems.

Third: I propose to allow the principal to issue re-admission cards to the pupils in minor infections, provided that in each instance a copy of said card is filed in the Health Office. That will enable us to get reports of infections where no physician is employed in the family, and no report whatever is obtained at the present time.

Fourth: I propose to allow the family physician to issue a re-admission card to the school, provided also that a copy of the same is sent to the Health Office.

Finally, it is proposed that a sanitary survey be made of the sewage disposal and water supply particularly, of each school at least once a year.

If in addition to these plans we can obtain an arbitrary division of the county of Los Angeles into sanitary districts, and appoint therein a Deputy County Health Officer, or Sanitary Supervisor, we might make some headway in this important problem.

In conclusion, I feel that the greatest crop that southern California has is not its oranges, nor its lemons, nor its nuts, nor its alfalfa, but that the greatest crop is its children, and that the most important business is to safeguard in every way possible the lives of our future citizens.

## MALARIA CONTROL.\*

By Senior Surgeon C. C. PIERCE, United States Public Health Service,  
San Francisco.

From the time of the discovery of malaria by Lavarán in 1880 until the present, the control of malaria has been an important field of effort for scientific workers.

The name of the disease is, of course, a misnomer, malaria meaning bad air. Some persons still think that malaria can be contracted by sleeping out of doors at night, or with windows open. It can be contracted through such exposure, but the transmitting agent is the Anophiline mosquito—not bad air, or night air, or other cause, except the bite of an infected mosquito.

During the summer of 1900 there were certain experiments carried out which proved in a conclusive manner that there is but this one way for the transmission of malaria. Three doctors spent several months in a very malarious region near Rome, taking no precautions except to sleep in a screened house and avoiding the bites of mosquitoes. People all around these men were suffering with malaria, but the doctors did not contract it, because they were not bitten by mosquitoes. To prove the other side of the proposition, mosquitoes infected with malaria from having fed on the blood of a man suffering from the disease, were sent across the sea and allowed to bite a well man in another country, causing malaria to develop in a region otherwise free from the disease. The plasmodium was recovered from the blood of this case many times.

\*Read at the annual conference of state, county and municipal health officers, held at Oakland, September 7-10, 1915.



### Control is Matter for Action.

When the cause of a disease is known, and the agent responsible for its spread is recognized, its control or entire elimination is merely a matter of taking pains to carry out in an effective manner certain very definite requirements.

The animal parasite that causes malaria can live only in the blood cells of man and certain mosquitoes; therefore the measures necessary to prevent malaria are limited in their application to two general groups—man and mosquitoes.

If no infected human beings are present in a community, there will be no malaria, no matter how many mosquitoes there may be. If there are no mosquitoes present, the infection of malaria can not possibly be transmitted from one person to another.

The question of control of malaria is of great importance for the reason that the disease is quite generally distributed from the New England States to Mexico along our eastern coastal plain, over nearly all of the great Mississippi Valley, and in many valleys of the west coast of our country.

During the year 1913 the number of deaths reported in a part of the United States, the registration area, from malaria, totaled 2,924. Many States of the South, where malaria is particularly prevalent, are not included in this report. An estimate of the number of cases of malaria for 1913 is placed at 3,000,000.

If each of these cases lost only two weeks' wages on account of their illness, the money lost from this cause alone amounted to seventy-one million dollars.

This is but a poor measure of the loss of efficiency, health and happiness caused by malaria—caused by a disease that may be easily avoided, simply by not allowing mosquitoes to bite one. Fortunately not all *Anophilines* even are malarial vectors. Those that were most easily infected on the Isthmus were the *A. albimanus* and the *A. tarsimaculata*. The former became infected 70 times out of 100, and the latter 60 times out of 100.

### Outline for Anti-Malaria Campaign.

How can malaria be avoided? A campaign for the prevention of malaria includes the carrying out of the following four measures:

1. *Prevention of mosquito breeding.* Mosquitoes can breed only in water, so that if there are no collections of water, such as pools, ditches, swamps and drains, there can be no mosquitoes. The mosquito that transmits malaria does not breed in cisterns, tanks, empty bottles, tin cans and such small collections of water, but only in the larger and more natural water deposits. Therefore, attention is directed to eliminating these breeding places. Among other measures that must be carried out is cutting grass, weeds, and bushes along water courses and around houses, so that the mosquitoes will have no place to hide and nothing to shelter them from winds and sun. A mosquito will die within a few hours if kept out in the sunshine. Strong winds prevent their going from their breeding places to the house of man.

Experiments regarding the flight of *Anophilines*, made at Panama, showed that certain ones could fly at least one mile against a four-mile wind.



In order to get rid of the water where *Anopheles* breed, the collection of water may be filled up or drained, where this is practicable. Either of these measures, particularly filling, is of a permanent nature. Often land filled or drained to prevent the breeding of mosquitoes may be used as factory sites, or for some other useful purpose and thus more than repay the cost of the work.

If the breeding place or swampy area can neither be drained nor filled, the surface of the water should be oiled. A small amount of kerosene placed on the surface of the water will absolutely prevent the hatching of mosquitoes. The eggs of the *Anopheles* are deposited singly, each with a little air sac to float them. The larvæ and pupæ live in water. They are, however, true air breathers, and must come to the surface to breathe. If the surface is covered with oil a droplet of oil will stop up the breathing syphon and the "wiggler" will be smothered. A film of oil will also destroy many adult females that come to deposit eggs.

Another agent of great value, used on the Isthmus of Panama to prevent mosquito breeding, is "Larvacide." This solution is made from crude carbolic acid, resin and caustic soda. Used in dilutions of 1 part of Larvacide to 15,000 parts of water it will destroy *Anopheline* larvæ in about two hours. Larvacide is poison, however, and can not be employed on water that may be used by man or stock for drinking purposes.

Water favorable for the breeding of mosquitoes must be free from swift currents, so that often the straightening of the sides of ditches and removing vegetation along its border will result in making such a ditch unfavorable for the breeding of mosquitoes. Such ditches and natural drains should be lined with concrete or smooth stones wherever possible. If none of these plans can be carried out the introduction of fish has considerable value. Minnows eat enormous numbers of the eggs, larvæ and pupæ of mosquitoes.

2. *Keeping mosquitoes away from well persons.* This is accomplished by screening dwelling houses. In Panama all buildings were screened, resulting in a great reduction of illness from malaria. During 1906 there were 21,938 cases of malaria among the employees of the Isthmian Canal Commission, resulting in deaths at the rate of 7.45 per thousand, while during 1908 there were only 12,372 cases of malaria, with a death rate of 1.34 per 1,000. Screening of dwellings should be universally carried out, as it prevents not only malaria but other insect-born diseases. Screening must be effective to accomplish its purpose. All details must be carefully looked after or mosquitoes will find entrance to the building through small openings that have been overlooked. Screens also require constant repairs. Where screening is not possible, and in many cases as an additional precaution, bed nets, or mosquito bars, should be used.

3. *Preventing mosquitoes from becoming infected with malaria.* This is accomplished by treating all persons affected with malaria in screened buildings, and requiring the use of bed nets properly tucked in. Even after the patient has apparently recovered, there are still the parasites of malaria in his blood, and mosquitoes may become infected with malaria and transmit the disease to other men if they are allowed access to the person.



Catching mosquitoes by hand in dwellings in malarious regions has been found to be a measure of great value in preventing malaria. In this way hundreds of infected mosquitoes are destroyed before they have an opportunity of spreading the disease. This measure is especially applicable in temporary camps.

4. *Giving quinine to well persons to prevent malaria.* This has accomplished great results where it has been tried on a systematic plan. Quinine was placed on all tables at hotels and messes on the Panama Canal Zone. During the early days a circular was handed to each arrival telling them that malaria was transmitted only by mosquitoes, and advising the use of small doses of quinine daily as a preventative of malaria.

Quinine is a poison for the plasmodium malariae, and if one has small amounts of quinine circulating in his blood, malaria will not develop, even if an infected mosquito should bite such a person. Quinine will do no harm, taken for long periods of time. Even those few persons that are very susceptible to quinine; in whom it may cause rashes or headaches can soon get accustomed to taking quinine regularly by starting with very small doses, one-half or even one-eighth grain in solution and gradually increasing the dose until they can take the amount necessary to prevent the development of malaria.

In Italy the use of quinine as a prophylactic for malaria has been the practice since 1902. Since 1904 quinine has been given to working people in Italy free of charge. This has resulted in reducing the number of cases of malaria in a certain part of Italy where the records were well kept from 11,653 to 2,974 per year, thus preventing 8,679 cases of malaria per year. In all Italy the deaths from malaria have been reduced from 14,048 to 3,853, therefore saving 10,195 human lives in one year from one preventable disease.

## THE SEPTEMBER MEETING OF THE STATE BOARD OF HEALTH.

The regular monthly meeting of the State Board of Health was held on September 4th in the administrative office of the Board in Sacramento. There were present President George E. Ebright, Dr. F. F. Gundrum, Dr. Edward F. Glaser, Dr. Adelaide Brown, Dr. Robert A. Peers and Dr. Wilbur A. Sawyer.

Two new members had been appointed to the Board by Governor Johnson since the August meeting. Dr. Robert A. Peers, vice Dr. James H. Parkinson, term expired, and Dr. Wilbur A. Sawyer, vice Dr. Donald H. Currie, resigned, having qualified by filing the oath of office with the Secretary of State, presented their credentials to the Board and were seated as members. The office of Secretary of the Board, left vacant by the resignation of Dr. Donald H. Currie, was filled by the election of Dr. Wilbur A. Sawyer. Dr. F. F. Gundrum was elected Vice-President of the Board, vice Dr. James H. Parkinson.

A large volume of business was transacted. Action was taken regarding the investigation or abatement of various insanitary conditions. Problems in connection with water supplies and sewage disposal received



special attention, and Mr. Gillespie, Chief Engineer and Director of the Bureau of Sanitary Engineering, was called into conference.

In accordance with the recommendation of Miss Anna C. Jammé, Director of the Bureau of Registration of Nurses, the percentage necessary for passing the examinations for license as registered nurse was raised from 70 to 75. The following training schools for nurses, previously accredited by the Board at their meeting on September 5, 1914, were reaccruited for one year from September 4, 1915: Angelus Hospital, Los Angeles; Alameda Sanitarium, Alameda; Buena Vista Sanitarium, San Francisco; Children's Hospital, San Francisco; Clara Barton Hospital, Los Angeles; Columbia Hospital, San Jose; County Hospital, Los Angeles; Dameron Hospital, Stockton; Emergency Hospital, Los Angeles; California Hospital, Los Angeles; Fabiola Hospital, Oakland; French Hospital, San Francisco; Hanford Hospital, Hanford; Lane Hospital, San Francisco; Mt. Zion Hospital, San Francisco; Peninsula Hospital, Palo Alto; Pacific Hospital, Los Angeles; Pasadena Hospital, Pasadena; San Joaquin County Hospital, French Camp; St. Helena Hospital, Sanitarium; St. Luke's Hospital, San Francisco; St. Winifred's Hospital, San Francisco; White Hospital, Sacramento; Los Angeles Infirmary, Los Angeles; St. Francis Hospital, San Francisco; Good Samaritan Hospital, Los Angeles.

The State of Queensland, Australia, by virtue of having laws governing the examination and registration of nurses equivalent to the laws of the State of California, was added to the list of states and foreign countries whose certificates of registration of nurses are recognized by the California State Board of Health. Holders of such recognized certificates may receive certificates of registration in California without re-examination.

Cards of instruction for those suffering from venereal diseases were ordered printed for distribution through appropriate channels. The cards show those having venereal diseases what precautions they must take if they are to avoid infecting others.

The Committee on Leprosy, through its chairman, Dr. Edward F. Glaser, submitted a report which will be found printed in full in this issue of the Monthly Bulletin in an article by Mr. Guy P. Jones entitled "A National Leprosarium." Resolutions urging the establishment of a federal leprosarium under the United States Public Health Service were proposed by the committee and were carried unanimously. The text of these resolutions will be found in the article mentioned above.

Attention having been called to a certain proposed ordinance, a resolution was passed that the Secretary be instructed to communicate immediately with the Supervisors of San Francisco calling attention to the regulations of the State Board of Health relative to diphtheria carriers, and stating that no local ordinance can supervene the jurisdiction of the Board in such matters. Rule No. 11 of the Regulations for the Prevention and Control of Diphtheria Carriers, adopted by the Board at their meeting of July 6, 1914, and distributed in printed form to health officials, was amended so that the first sentence should read "Any person who has been free from symptoms of diphtheria for a month or longer and who harbors diphtheria bacilli is a diphtheria carrier and is hereby declared to be a menace to the public health."



The Secretary was instructed to prepare signs warning campers and others against the pollution of streams, the drinking of polluted water, and the scattering of refuse.

On the recommendation of Mr. C. G. Gillespie, Director of the Bureau of Sanitary Engineering, Mr. Frank Bachmann was appointed Chemist and Bacteriologist in the Bureau of Sanitary Engineering.

The following companies, having complied with the law, were granted licenses to operate cold storage warehouses: Cone Ice and Cold Storage Company, Red Bluff; California Ice Company, Oakland; Consumers Ice and Cold Storage Company, Sacramento; James R. Erskine, Bakersfield; Fresno Consumers Ice Company, Fresno; Grace Bros. Inc., Santa Rosa; Keystone Cold Storage Company, San Francisco; Los Angeles Ice and Cold Storage Company, Los Angeles; Merchants Ice and Cold Storage Company, Los Angeles; National Ice and Cold Storage Company, Los Angeles; National Ice and Cold Storage Company, Riverside; National Ice and Cold Storage Company, Santa Rosa; National Ice and Cold Storage Company, San Francisco; National Ice and Cold Storage Company, Oakland; Pacific Ice and Cold Storage Company, Oakland; Pasadena Ice Company, Pasadena; Petaluma Ice and Cold Storage Company, Petaluma; Pomona Valley Ice Company, Pomona; San Diego Ice and Cold Storage Company, San Diego; San Jose Ice and Cold Storage Company, San Jose; San Luis Ice and Cold Storage Company, San Luis Obispo; San Pablo Ice and Cold Storage Company, Vallejo; Southern California Ice Company, San Bernardino; Watsonville Ice and Cold Storage Company, Watsonville.

The following resolutions of appreciation of the services of Dr. Donald H. Currie were carried unanimously and ordered sent to him:

WHEREAS, Dr. Donald H. Currie has resigned his position as a member of the California State Board of Health and has returned to duty as an officer in the United States Public Health Service; and

WHEREAS, This resignation leaves a vacancy in the office of Secretary which Dr. Currie has acceptably filled since December 20, 1913; and

WHEREAS, Dr. Currie's extended experience in public health administration as well as his special knowledge in connection with plague, leprosy, cholera and yellow fever rendered him especially valuable to California; therefore be it

*Resolved*, That we, the undersigned members of the California State Board of Health, deeply appreciate the past services and regret the loss of an associate whose expert opinion on questions vital to California was always most valuable; and be it further

*Resolved*, That in resuming his active duties as a member of the United States Public Health Service in California we are glad that his special knowledge is still available while his experience as our executive officer will always be of value in dealing with the sanitary problems of the State; and be it further

*Resolved*, That we unite in wishing him continued success in the service of public health in the United States and in hoping that his assignment to duty in California will continue for many years.

The Board held hearings for violations of the Foods and Drugs laws. In fourteen cases the alleged violators or their representatives were present in person to answer to the charges. Other violators submitted affidavits. Action was taken according to the merits of each case.

W. A. SAWYER, Secretary.



## PROCEEDINGS OF THE SEVENTH ANNUAL CONFERENCE OF STATE, COUNTY, AND MUNICIPAL HEALTH OFFICIALS.

The Seventh Annual Conference of State, County, and Municipal Health Officials met as the Department of Health Officials of the League of California Municipalities in Oakland, from September 7 to 10, inclusive. The meetings were held in the new Municipal Auditorium.

The session was well attended and many questions of vital importance to public health administration were freely discussed. A brief synopsis of the proceedings follows:

### Tuesday, September 7.

In the forenoon, the delegates attended the general meeting of the League of Municipalities and listened to addresses and reports of committees. Among the speakers was ex-President William Howard Taft, who spoke on "The City Planning Idea."

In the afternoon, at 1:30 o'clock, the Health Officials Conference was called to order by Dr. F. W. Browning, Health Officer of Hayward, acting as temporary chairman, in the absence of the President, Dr. Donald H. Currie. Dr. W. A. Sawyer, Secretary of the California State Board of Health, was elected chairman for the session.

A motion was made by Mr. Harold F. Gray, Health Officer of Palo Alto, that a committee of three be appointed to prepare and recommend by-laws on eligibility for membership in the Health Officials Department of the League of California Municipalities. The motion was seconded and carried. The chairman announced that the committee would consist of the following delegates: Mr. Harold F. Gray, Chairman; Dr. Stanley P. Black, Health Officer of Pasadena; Dr. F. W. Browning, Health Officer of Hayward.

Dr. George E. Tucker, Secretary-Treasurer of the Department of Health Officials, made his report. He stated that no money had been spent since the last meeting and that there were sixteen dollars in the treasury. Minutes of the last session were not read as the proceedings had been published in full by the State Board of Health and distributed to the members.

Dr. C. A. Poage, Health Officer of Colusa and Colusa County, opened the scientific program by reading a paper on "The Causes of Typhoid Fever in the Sacramento Valley." This paper will be published in a later issue of the Monthly Bulletin.

A paper on "The Use of Antityphoid Vaccine in Reducing the Typhoid Morbidity Rate in the Civil Population" was presented by Captain Henry J. Nichols, of the United States Army Medical Corps.

These two papers were discussed by Dr. Brett Davis, Health Officer of Merced, Dr. Jackson Temple, Health Officer of Santa Rosa, Dr. Poage, Mr. Gray, Health Officer of Palo Alto, Professor C. G. Hyde, Consulting Engineer to the California State Board of Health, and others. Mr. Gray felt that typhoid vaccine was limited in value, because it could not be made compulsory in the civil population. He said that inquiries for typhoid vaccine increased suddenly when cases of typhoid were present in the community. As the cost of the administration of the vaccine was a large factor in discouraging its general use, Mr. Gray



suggested that communities in which typhoid fever was a problem should offer typhoid vaccination, as well as smallpox vaccination, free. In Palo Alto the Health Department is endeavoring to do this. Dr. Poage stated that he had administered two or three hundred vaccinations in his vicinity. He suggested a general plan of campaign against typhoid fever, including newspaper articles and circulars.

In reply to a question, Dr. Nichols stated that the immunity after typhoid vaccination was probably four years, and that in the army they revaccinate at the end of that period. He called attention to the fact that, due to vaccination against typhoid fever, there was now even less typhoid fever in the army than smallpox.

At 3:30 p. m., the Health Officials Department adjourned, in order to participate in a general meeting of the League of Municipalities devoted to water supplies and sewage disposal. The program had been arranged by the Departments of Health Officials and Engineers. Dr. Sawyer acted as chairman.

The first address was delivered by Dr. G. C. Simmons, Health Officer of Sacramento. His subject was "Water Purification by Liquid Chlorine at Sacramento." He reported success in eliminating the danger of contracting typhoid fever from the city water supply, and cited the marked reduction in typhoid fever as evidence.

Dr. Stanley P. Black, Health Officer of Pasadena, discussed "Water Purification at Pasadena," illustrating his talk with a map showing the sources of the water used in Pasadena.

"The Pollution of Underground Water Supplies by the Use of Deep Cesspools" was the subject of a paper presented by Mr. Charles Gilman Hyde, Consulting Engineer to the State Board of Health and Professor of Sanitary Engineering in the University of California. Professor Hyde called attention to the great danger of discharging sewage through wells down into water-bearing strata from which the local supply of drinking water is derived. Unfortunately, this deplorable method of sewage disposal has been resorted to in some parts of California.

Dr. F. W. Browning, Health Officer of Hayward, discussed "Water Supplies in Rural Districts," illustrating his talk with a map showing rural water supplies in the vicinity of Hayward. He presented the results of an intensive study of the sources of pollution of those supplies, including bacteriological examinations made at the State Hygienic Laboratory.

"Sewage Disposal for Interior Towns" was the subject of a paper by Mr. Chester G. Gillespie, Chief Engineer and Director of the Bureau of Sanitary Engineering of the California State Board of Health.

The discussion of these five papers brought out many important points, which will be of assistance to the delegates in the campaign to prevent typhoid fever and other water-borne diseases.

In the evening, a reception was given to the delegates at the Municipal Reference Library of the city of Oakland, in the new City Hall.

#### Wednesday, September 8.

The Health Officials Conference met at 9:30 o'clock. The meeting was opened by a paper on "Methods of Malaria Control" by Senior Surgeon C. C. Pierce of the United States Public Health Service. This paper will be published elsewhere in this issue of the Monthly Bulletin.



The paper elicited a lively discussion, which was participated in by Doctors Black, Hurley, Powers, Mr. Gray, Professor Herms, and others.

Dr. Powers called attention to the fact that crude oil, as it came from the wells, did not spread properly and left spaces favorable to mosquito larvæ; on the other hand, he had found that the use of stove distillate stopped the breeding. Dr. Powers reported, also, that he had noticed the breeding of mosquitoes among the tules in the harbor. He asked for information regarding the best kind of oil to use in preventing the breeding of mosquitoes.

Mr. Gray answered Dr. Powers' question by stating that, while crude oil was unsatisfactory, a stove distillate of specific gravity of 28 to 32 degrees Baumé, would be found very effective. The crude oil does not spread well and is easily moved by winds, so that spaces are left which are favorable to mosquito breeding.

Mr. Gray quoted statistics regarding the success of anti-mosquito measures, and the subsequent reduction of malaria, at Penryn and on the property of the Los Molinos Land Company.

Professor Herms read a short paper regarding plans for malaria control in California. He called attention to the need for proper supervision of control measures by experts. These experts should be acquainted not only with the breeding habits of the mosquito and the methods of preventing its development but also with the phases of the problem peculiar to the region in which they are working. The development of the rice industry in California will demand new methods to prevent the increase of malaria, and should be a subject for intensive study.

In closing the discussion of both papers Dr. Pierce, in answer to a question, stated that for prophylactic purposes, quinine should be used in amounts of at least five grains a day. A good way to take it is in two doses of three grains each, one in the morning, and one in the evening. Those who complain of the effects of quinine should take a single dose of five grains, in the morning, with their first meal. In malarial regions, quinine, used as a prophylactic, should be taken from the first of May up to October. There is little danger during the remainder of the year.

A paper entitled "The Present Status of the Campaign Against Plague" was read by Passed Assistant Surgeon J. R. Hurley of the United States Public Health Service. Dr. Hurley gave an account of the fight to eradicate bubonic plague from ground squirrels in California and reported success in reducing the infected area from twelve counties to three counties. The work is still being carried on through the co-operation of the United States Public Health Service, the California State Board of Health, and certain of the counties. The full text of Dr. Hurley's paper will be published in a subsequent issue of the Monthly Bulletin.

At 10:15 a. m. the Conference adjourned to reconvene at once in a joint session with the City Planning Conference, on the subject of housing. Dr. Sawyer occupied the chair. The meeting was opened by an address on "The Relation of Bad Housing to Disease" by Dr. James McBride, a member of the State Commission of Housing and Immigration. The paper was illustrated by lantern views showing housing conditions in various cities of the world.



In the second paper, entitled "The Housing Problem in Los Angeles," Dr. L. M. Powers, Health Commissioner of Los Angeles, discussed the situation with regard to housing in that city.

The Reverend Dana Bartlett, member of the Housing Commission of Los Angeles, read a paper on "Housing," in which he described the movement on foot to secure good housing conditions in Los Angeles County, and also in other parts of the world.

The situation in San Francisco was discussed in a paper on "The Housing Problem in San Francisco" by Mr. Lester G. Burnett, formerly Tenement House Inspector of the San Francisco Health Department.

These papers were discussed freely by the delegates who were present.

At 2 o'clock in the afternoon there was a joint meeting of the Health Officials Conference and the Department of Engineers, Councilmen, and Street Superintendents, to consider subjects of public health interest.

The first paper was on the "Municipal Water Supply of Los Angeles," given by Mr. William Mulholland, Engineer of the Los Angeles Municipal Water Works. The paper was illustrated by maps and was preceded by a demonstration of a relief map, showing the watershed and aqueduct of the newly acquired supply.

The second paper was read by Dr. George E. Ebright, President of the California State Board of Health. He spoke on "Plans for Malaria Control Under the New Mosquito Abatement District Act." Dr. Ebright outlined the plans of the State Board of Health for reducing malaria in those parts of the State in which it exists.

Mr. Chester G. Gillespie, Chief Engineer and Director of the Bureau of Sanitary Engineering of the California State Board of Health, read a paper on "The Classification of Streams from the Viewpoint of Sewage Pollution."

"Joint Health Organization by Smaller Cities on the Co-operative Plan" was discussed by Mr. B. D. Marx Greene, City Attorney of Antioch and Pittsburg. He called attention to the advantages of a joint health organization where cities were not large enough to maintain efficient health departments by themselves. He demonstrated that there was great waste in our present system through duplication of supervision over milk and meat supplies. Mr. Greene's address elicited a lively discussion, which showed that the delegates were highly interested in his plan and desirous to see it applied as a means of making local health administration in smaller communities more efficient.

Dr. William Simpson, Health Officer of Santa Clara County, made a motion that a Legislative Committee of the Department of Health Officials be appointed and that it should consist of Mr. Greene, as chairman; Dr. Sawyer, as secretary, and three other members to be appointed by the chair. This committee was to plan legislation aiming to facilitate the formation of joint health organizations by smaller cities, and to consider other legislation of interest to the health officials. The committee was to report to the next Health Officials Conference. The resolution was carried and the chairman filled the three vacancies on the committee. The completed legislative committee was as follows: Mr. B. D. Marx Greene, Attorney of Antioch and Pittsburg, chairman; Dr. W. A. Sawyer, Secretary of the State Board of Health, secretary; Dr. William



Simpson, Health Officer of Santa Clara County; Dr. George E. Ebright, President of the State Board of Health, and Dr. Stanley P. Black, Health Officer of Pasadena.

The joint meeting was closed by a paper on "The Sewage System of Los Angeles" by Mr. W. T. Knowlton, Engineer of Sewers, Los Angeles.

**Thursday, September 9.**

In the forenoon the delegates attended the Panama-Pacific Exposition, viewing exhibits bearing on public health and participating in the Admission Day celebrations.

At 3 p. m. the delegates met Senior Surgeon C. C. Pierce at the United States Public Health exhibits in the Palace of Liberal Arts. Dr. Pierce demonstrated the public health exhibits from 3 to 5 p. m., beginning with the exhibits of the United States Public Health Service, then showing other health exhibits of the government, states, and private associations.

**Friday, September 10.**

The first paper on the program was given by Dr. R. M. Higgins, Health Officer of Oakland, and was entitled "How Can We Get More Complete Reporting of Communicable Diseases?"

The paper was discussed by Dr. G. C. Simmons, Dr. L. M. Powers, Mr. Harold F. Gray, and Dr. Katherine Porter of Orange, New Jersey. The speakers emphasized the difficulties of keeping correct statistics of causes of death, owing to the mistakes in diagnosis by practitioners who had not been properly trained in medicine. They also brought out the importance of education of the public regarding the importance of proper health records. Mr. Gray reported that he had secured four convictions for failure to report diseases, and he believed that practically all recognized cases of reportable diseases in Palo Alto now came to the attention of the health office. Dr. Porter stated that in Orange, New Jersey, reporting had been made efficient through a good system of school inspection.

The Conference next took up a general discussion of "Co-operation by Health Departments and Hospitals in Controlling Venereal Diseases." Dr. Edward F. Glaser, member of the State Board of Health, stated that the Department of Health of San Francisco had given rent-free room to the California Social Hygiene Society and had been aiding it in distributing literature and posting cards of advice to persons suffering from venereal diseases. In co-operation with the Social Hygiene Society, the San Francisco Department of Health has been able to secure the removal of advertisements of quacks from lavatories and the putting up of the signs of the Health Department in their place. He stated that the State Board of Health had prepared a sign to be posted in the lavatories of trains and depots, and had also prepared cards of instructions for persons having venereal diseases. These cards will be given to clinics and health officers for distribution, with a view to preventing persons having venereal diseases from infecting other people.

Dr. Chalmers Francis of Los Angeles read a paper entitled "Child Welfare." He described the municipal pure milk stations and welfare stations in Los Angeles, and discussed their success in child welfare work.



The next paper was read by Dr. J. L. Pomeroy, Health Officer of Los Angeles County. His paper on "The Sanitation of the Country School" is published in this issue of the Monthly Bulletin.

The last two papers were discussed by Mr. Harold F. Gray, Health Officer of Palo Alto; Dr. W. E. Coppedge, Health Officer of Alturas and Modoc County; Dr. Jackson Temple, Health Officer of Santa Rosa; Dr. L. M. Powers, Health Commissioner of Los Angeles; Dr. Wm. Simpson, Health Officer of Santa Clara County; Dr. R. L. Taylor, Health Officer of Long Beach; Dr. W. A. Sawyer, Secretary of the State Board of Health; Dr. G. M. Converse, of the Health Department of San Francisco; and Dr. E. A. Banks, Health Officer of San Diego.

Dr. Temple suggested that the health officers could do much to improve the sanitation of the country school by taking part in the programs of teachers' institutes.

Dr. Simpson stated that, in his opinion, no child should be allowed to go from one school district to another without a health certificate. He felt that health officers could improve conditions, with regard to sanitation of rural schools, by speaking before mothers' clubs, and by arranging for the attendance of the senior classes from neighboring schools, at these talks.

Dr. Taylor, in referring to the paper of Dr. Francis, told about the day nursery in Long Beach. Mothers leave their babies at the nursery while they work. Milk is supplied, without charge, by one of the dairies. This nursery enables mothers to work in the canneries, with the knowledge that their children are being hygienically cared for.

Dr. Powers, Dr. Converse and Dr. Banks discussed the control of diphtheria carriers in schools. Dr. Converse stated that the practice in San Francisco was to take cultures from a whole class if two cases appeared in the one room. Carriers who were detected were excluded from school and quarantined.

"Office Forms and Equipment for Small City Health Departments," was the title of a paper by Mr. Harold F. Gray, Health Officer of Palo Alto. The paper was discussed by Dr. Jackson Temple and Dr. F. W. Browning.

Dr. Browning stated that he wished to have standard records and a standard form for an annual report. He called attention to the fact that, if standard forms were devised, they could be printed in large numbers, with small expense to the health departments of small communities.

A motion was carried that a committee of five, including the chairman, be appointed to consider the question of standard forms for the records of health departments and to report at the next meeting. Dr. Sawyer announced the membership of the committee, as follows: Harold F. Gray, Health Officer, Palo Alto; Fred W. Browning, M.D., Health Officer, Hayward; Jackson Temple, M.D., Health Officer, Santa Rosa; George D. Leslie, Statistician, State Board of Health, Sacramento; Wilbur A. Sawyer, M.D., Secretary State Board of Health, Sacramento, Chairman.

Mr. E. J. Lea, Director of the Bureau of Foods and Drugs of the California State Board of Health, gave an address on "Co-operation Between Health Officers and the State Food and Drug Laboratory."



The scientific program being completed, the next order of business was the election of officers for the ensuing year. Dr. W. A. Sawyer, Secretary of the State Board of Health, was elected President, and Dr. F. W. Browning, Health Officer of Hayward, was elected Vice-President. Dr. R. L. Taylor, City Health Officer of Long Beach, was elected Secretary-Treasurer.

A motion was passed that the program committee should consist of three members from widely separated parts of the State. The chair announced the following membership of this committee: Dr. Jackson Temple, Health Officer of Santa Rosa, Chairman; Dr. J. L. Pomeroy, Health Officer of Los Angeles County; and Dr. W. C. Hassler, Health Officer of San Francisco.

The report of the Committee on Organization and Membership was read by the Chairman, Mr. Harold F. Gray, as follows:

"Your Committee on Membership, to which was referred the matter of qualifications for membership in this section, does hereby unanimously recommend that the following be adopted as a by-law at this section:

'Membership in the Section of Health Officials of the League of California Municipalities shall be limited to the members of the California State Board of Health and its heads of bureaus, technical and professional employees; to members of County and Municipal Boards of Health and Health Departments, and County and Municipal Health Officials and technical and professional employees of County and Municipal Boards of Health or Health Departments.

Officers of the United States Public Health Service, and all persons engaged in teaching and research in hygiene and public health, are cordially invited to attend all meetings of the Section of Health Officials, and shall be entitled to present papers upon invitation to the Committee on Program and to enter into all discussions.' "

The resolutions proposed by the Committee were adopted by the Conference.

Dr. William Simpson presented the report of the Legislative Committee appointed at the last session. The report was accepted.

Mr. Harold F. Gray, Health Officer of Palo Alto, introduced the following resolution:

WHEREAS, The practice of public health has now become a special practice involving a thorough technical knowledge of many fundamental sciences and their practical application to the various problems of public health; and

WHEREAS, The practice of public health requires for successful prosecution an adequate technical training and experience; and

WHEREAS, The public health is too important to be entrusted to men not adequately equipped to protect it; therefore be it

*Resolved*, That the following professional training should be required by the State Board of Health as prerequisite to appointment to any position as an executive head of any health department in the State of California, namely,

(1) He shall hold a degree in public health from a reputable university, medical or technical school, which degree shall be granted on the basis of not less than five years' training in fundamental sciences and studies pertaining to public health, or

(2) He shall be a graduate in medicine who shall hold a degree or diploma from a reputable university, medical or technical school, such degree or diploma being granted on the satisfactory completion of not less than eight months' study of technical courses in public health, or

(3) He shall be a graduate in medicine who shall within one year after his appointment to office pass a technical examination in public health practice, which examination shall be prepared and given by the State Board of Health.



As the purpose of this resolution could not be accomplished except through legislation, it was moved, seconded and carried that the resolution be referred to the Legislative Committee.

Dr. J. L. Pomeroy, Health Officer of Los Angeles County, introduced the following resolution:

WHEREAS, The University of California, through its Division of University Extension, is prepared to offer to the people of the State of California information and courses of study in various subjects; and

WHEREAS, The said Division of University Extension is now assisting other departments of the League of California Municipalities along educational and informational lines; and

WHEREAS, Under present conditions in California many Health Officers are appointed who have not had opportunity to obtain definite training and instruction in public health practice, but who would be glad to avail themselves of an opportunity for instruction and assistance in their work; and

WHEREAS, A properly adopted correspondence course in public health practice would be of material aid in so assisting Health Officers in the intelligent performance of their duties; therefore be it

*Resolved*, That the Section of Health Officials of the League of California Municipalities does hereby memorialize the University of California, requesting that through its Division of University Extension it prepare for distribution to health officials a correspondence course or courses in public health practice, and that the Division of University Extension for this purpose co-operate with the Department of Hygiene and other suitable departments in the University of California, and with the State Board of Health; and be it further

*Resolved*, That in addition to such correspondence course or courses, and supplementary thereto, the University of California in collaboration with the State Board of Health, provide a short course, of about six weeks in duration, with intensive personal instruction in public health practice and methods, which shall be given annually, and which shall be given either at Berkeley, or at central points in various parts of the State, or both.

A motion that the resolution be adopted was made, seconded, and carried.

Mr. Harold F. Gray presented the following resolution for consideration by the Conference:

WHEREAS, The American Public Health Association is an organization of health officials and other persons engaged in public health work in the United States of America, the Dominion of Canada, the Republic of Cuba and the Republic of Mexico; and

WHEREAS, All persons engaged in public health work are eligible to membership therein, and upon payment of membership dues are entitled to receive copies of the American Journal of Public Health, published monthly, which journal is the official organ of the Association; and

WHEREAS, Membership in the American Public Health Association and the regular reading of the American Journal of Public Health will tend to increase the efficiency and technical knowledge of all health officers; therefore be it

*Resolved*, That it is the sense of this conference that all health officials in the State of California should be, and are hereby urged to become, members of the American Public Health Association; and be it further

*Resolved*, That the chairman of this conference, and two other members of this conference who are also members of the American Public Health Association and who shall be appointed by the chairman, shall constitute a committee to canvass the health officials of the State of California for applications for membership in the American Public Health Association, and to recommend for membership in the Association such health officials as shall apply for membership.

The resolutions were adopted. In accordance with their provisions, the chairman made the two appointments necessary to complete the Committee on Membership in the American Public Health Association. The committee consists of the following members of the Conference: J. N. Force, M.D., member of the Berkeley Board of Health, chairman; Professor C. G. Hyde, Consulting Engineer of the State Board of Health; W. A. Sawyer.



A motion was made that legislation would be desirable which would make it possible to call all health officers of the State together for an annual conference, the expenses to be paid by the counties and cities represented. The motion was referred to the Legislative Committee.

Dr. Stanley P. Black, Health Officer of Pasadena, introduced a motion that local registrars of vital statistics be urged to turn over all requests, unless urgent, for certified copies of records of births or deaths, to the State Board of Health in order that the fees would be used in public health work. The motion was seconded and carried.

Miss Edith L. M. Tate, Executive Secretary of the California Association for the Study and Prevention of Tuberculosis, addressed the Conference, urging that public health records of individual cases of illness be not given to persons having no legitimate reason for seeing them. A lively discussion followed in which Dr. S. P. Black of Pasadena, Dr. L. M. Powers of Los Angeles, Dr. J. J. Benton of Berkeley, and others, participated. There was considerable difference of opinion as to the legal status of records showing diseases of individuals, especially when the individual would be injured if the records were freely consulted. Several delegates stated that they did not permit such records to be given out.

The Health Officials Conference adjourned at 12:30 p. m., September 10, 1915, to meet a year later in Visalia.

W. A. SAWYER, Chairman.

#### Members Present.

Fred W. Browning, M.D., Health Officer, Hayward.  
 L. M. Powers, M.D., Health Commissioner, Los Angeles.  
 Stanley P. Black, M.D., Health Officer, Pasadena.  
 C. A. Poage, M.D., Health Officer of Colusa and Colusa County, Colusa.  
 L. W. Atkinson, M.D., Health Officer, Azusa.  
 F. E. Corey, M.D., Health Officer, Alhambra.  
 O. G. Wicherski, M.D., Health Officer of San Diego County, San Diego.  
 Alfred E. Banks, M.D., Health Officer, San Diego.  
 Benjamin B. Ward, M.D., Health Officer, San Fernando.  
 William L. Hood, M.D., Health Officer of Tuolumne County, Sonora.  
 A. Maulhardt, M.D., Health Officer of Ventura County, Oxnard.  
 W. H. Haines, M.D., Health Officer, Etna Mills.  
 Arthur L. Brown, M.D., Health Officer of Riverside County, Riverside.  
 John W. Callnon, M.D., Health Officer of San Bernardino County, San Bernardino.  
 Bret Davis, M.D., Health Officer, Merced.  
 C. H. Phinney, M.D., Health Officer, Eagle Rock.  
 F. R. Woolsey, M.D., Health Officer, Albany.  
 Mrs. Norman Scofield, Health Officer, Sunnyvale.  
 Jackson Temple, M.D., Health Officer, Santa Rosa.  
 J. H. Lang, M.D., Health Officer, Fullerton.  
 J. L. Mudd, M.D., Health Officer of Merced County, Merced.  
 G. M. Converse, M.D., Chief Sanitary Inspector, San Francisco Health Department, San Francisco.  
 Edward F. Glaser, M.D., Member State Board of Health, San Francisco.  
 R. M. Higgins, M.D., Health Officer, Oakland.  
 Ralph L. Taylor, M.D., Health Officer, Long Beach.  
 E. J. Lea, Director, Bureau of Foods and Drugs, State Board of Health, Berkeley.  
 W. E. Coppedge, M.D., Health Officer of Alturas and Modoc County, Alturas.  
 Harold F. Gray, Health Officer, Palo Alto.  
 William Simpson, M.D., Health Officer of Santa Clara County, San Jose.  
 J. J. Benton, M.D., Health Officer, Berkeley.  
 W. C. McLean, M.D., Health Officer, San Mateo.  
 A. Hieronymus, M.D., Health Officer, Alameda.  
 P. W. Byrd, President of the Board of Health, Newman.  
 J. L. Pomeroy, M.D., Health Officer of Los Angeles County, Los Angeles.  
 George E. Ebright, M.D., President, State Board of Health, San Francisco.  
 J. N. Force, M.D., Member, Board of Health, Berkeley.



- J. C. Geiger, M.D., Acting Director, Bureau of the Hygienic Laboratory, State Board of Health, Berkeley.  
 Frank L. Kelly, M.D., Bacteriologist, Bureau of the Hygienic Laboratory, State Board of Health, Berkeley.  
 Charles Gilman Hyde, C.E., Consulting Engineer, State Board of Health, Berkeley.  
 Chester G. Gillespie, Director, Bureau of Sanitary Engineering, State Board of Health, Berkeley.  
 H. O. Jenkins, Palo Alto.  
 George E. Tucker, M.D., Riverside.  
 Herbert C. Foster, Sanitary Engineer, University of California, Berkeley.  
 Edith L. M. Tate, Executive Secretary, California Association for the Study and Prevention of Tuberculosis, Los Angeles.  
 W. V. C. Francis, M.D., Los Angeles.  
 H. B. Scudder, Superintendent, Sewer and Water System, Sebastopol.  
 R. V. Orbison, City Engineer, Pasadena.  
 Charles E. Hewes, City Engineer, Alhambra.  
 Captain Henry J. Nichols, M.D., United States Army Medical Corps, Presidio, San Francisco.  
 C. C. Pierce, M.D., Senior Surgeon, United States Public Health Service, San Francisco.  
 J. R. Hurley, M.D., Passed Assistant Surgeon, United States Public Health Service, San Francisco.  
 W. B. Herms, Consulting Parasitologist, State Board of Health, Berkeley.

### Officers and Standing Committees.

#### *Officers.*

- President, Wilbur A. Sawyer, M.D., Secretary State Board of Health, Sacramento.  
 Vice-President, Fred W. Browning, M.D., Health Officer, Hayward.  
 Secretary-Treasurer, Ralph L. Taylor, M.D., Health Officer, Long Beach.

#### *Program Committee.*

- Jackson Temple, M.D., Chairman, Health Officer, Santa Rosa.  
 J. L. Pomeroy, M.D., Health Officer of Los Angeles County, Los Angeles.  
 W. C. Hassler, M.D., Health Officer, San Francisco.

#### *Committee on Standard Forms for Records of Health Departments.*

- Wilbur A. Sawyer, M.D., Chairman, Secretary State Board of Health, Sacramento.  
 Harold F. Gray, Health Officer, Palo Alto.  
 Fred W. Browning, M.D., Health Officer, Hayward.  
 Jackson Temple, M.D., Health Officer, Santa Rosa.  
 George D. Leslie, Statistician State Board of Health, Sacramento.

#### *Committee on Legislation.*

- B. D. Marx Greene, Chairman, Attorney for Antioch and Pittsburg, Berkeley.  
 Wilbur A. Sawyer, M.D., Secretary, Secretary of the State Board of Health, Sacramento.  
 William Simpson, M.D., Health Officer Santa Clara County, San Jose.  
 George E. Ebright, M.D., President State Board of Health, San Francisco.  
 Stanley P. Black, M.D., Health Officer, Pasadena.

#### *Committee on Membership in the American Public Health Association.*

- J. N. Force, M.D., Chairman, Member Berkeley Board of Health, Berkeley.  
 C. G. Hyde, C.E., Consulting Engineer State Board of Health, Berkeley.  
 W. A. Sawyer, M.D., Secretary State Board of Health, Sacramento.



## REPORT OF THE BUREAU OF ADMINISTRATION FOR AUGUST, 1915.

WILBUR A. SAWYER, M.D., Director.

### SANITARY INSPECTIONS FOR SEPTEMBER, 1915.

EDWARD T. ROSS, Inspector.

The region about Lake Tahoe was visited during the month. Twenty-five summer resorts were inspected and were found, generally, to be in good sanitary condition. In most instances the chief fault to be found was with the systems of sewage disposal. The sewage from several resorts is deposited in Lake Tahoe. The conditions brought about by this method are most offensive to the senses of vacationists who visit the lake and are detrimental to the health of bathers.

A number of inspections were made in Truckee, the places visited being groceries, bakeries, meat markets, hotels and restaurants, saloons, lunch counters, dairies, stables and laundries. The city water supplies and sewage disposal system were also inspected.

#### Summary of Inspections for September.

Summer resorts -----	35	Water supplies -----	4
Hotels -----	13	Dairies -----	3
Meat markets -----	3	Saloons and lunch counters -----	9
Slaughter houses -----	2	Schools -----	2
Groceries and bakeries -----	3	Dwellings -----	30
Stables -----	5	Miscellaneous buildings -----	20
Sewage disposal systems -----	2		
		Total inspections -----	121

### MORBIDITY REPORTS.

GUY P. JONES, Morbidity Statistician.

#### Smallpox.

It has been several years since so few cases of smallpox have been reported during a single month, as was reported during the month of August, 1915. There were but four cases in the entire State. Two of these were in Glenn County, the disease having been contracted by contact with a case in San Joaquin County, during the preceding month. Another case was discovered in Santa Cruz, it being in the person of a railway mail clerk, the source of infection being unknown. The other case occurred in Tehama County, in the person of a schoolboy, the source of infection not having been discovered. In the case of the railway mail clerk, all necessary precautions were taken, the car in which he worked fumigated, the superintendent of the railway mail service notified, as well as the health officer of Alameda, in which city the patient resides.

#### Typhoid Fever.

There was a slight increase in the number of cases of typhoid fever reported during August, the total number being 131, as against 125 for the month of July.

#### Poliomyelitis.

There was a case of poliomyelitis in Corona and one in Fresno. This is a much smaller number of cases than is generally reported during August.



**Epidemic Cerebrospinal Meningitis.**

There were two cases of this disease in Los Angeles and one in Tulare County.

**Scarlet Fever.**

The number of cases of scarlet fever continues to grow less. There were only eighty-six reported during August.

**Measles.**

Measles also shows a great diminution, as there were only seventy-three cases reported during the month, while during the winter months there were as many as two thousand cases reported during a single month.

**Diphtheria.**

There were a few more cases of diphtheria reported during August than during July. This is probably due to the fact that the board's regulations for the control of diphtheria have been more strictly observed, leading to the discovery of mild cases which might otherwise have escaped attention.

**Dysentery.**

There were but four cases of dysentery reported during August.

**Chickenpox.**

Sixty-two cases of chickenpox were reported.

**Erysipelas.**

Twenty-two cases of this disease were reported.

**Gonococcus Infection.**

During August there were twenty-five cases reported.

**Malaria.**

There was a considerable increase in the number of cases of malaria reported, the total number being 122. Most of these were reported from the Sacramento Valley.

**Mumps.**

Forty cases of mumps were reported.

**Pellagra.**

One case of pellagra was reported during August. Although this is a reportable disease, many physicians are negligent in making reports. From a number of death certificates, giving pellagra as cause of death, it is evident that the disease is more prevalent in California than morbidity reports would indicate.

**Pneumonia.**

Forty-eight cases of pneumonia were reported during August.

**Syphilis.**

Thirty-four cases of syphilis were reported.

**Tuberculosis.**

There were more cases of tuberculosis reported during August than during July. Four hundred and twenty-nine cases were reported during the month.



**Anthrax.**

Two cases of anthrax were reported, one of which was in Sonoma County and one in Merced County.

**Beri-beri.**

One case of beri-beri in the person of a Japanese was reported.

**Tetanus.**

Two cases of tetanus were reported during August.

**Trachoma.**

Five cases of trachoma were reported during August.

**Leprosy.**

There were four cases of leprosy reported during August, all of which were in Los Angeles County, the patients all being Mexicans.

**Smallpox.***Distribution of Cases reported during August, 1915.*

Counties and cities	Number new cases reported during month	Deaths	Vaccination history of cases			
			Number vaccinated within seven years preceding attack	Number last vaccinated more than seven years preceding attack	Number never successfully vaccinated	Vaccination history not obtained or uncertain
Glenn County -----	2	-----	-----	-----	2	-----
Santa Cruz County -----	1	-----	-----	-----	-----	1
Tehama County -----	1	-----	-----	-----	1	-----
	4	-----	-----	-----	3	1

**Typhoid Fever.***Distribution of Cases reported during August, 1915.*

Counties and cities	Number of new cases reported during month	Counties and cities	Number of new cases reported during month
Alameda County:		San Bernardino County:	
Alameda -----	3	Chino -----	1
Berkeley -----	3	San Diego County:	
Hayward -----	3	National City -----	1
Oakland -----	14	San Diego -----	3
Colusa County -----	12	San Francisco -----	19
Contra Costa County:		San Joaquin County:	
Richmond -----	1	Lodi -----	2
Fresno County:		Stockton -----	2
Firebaugh -----	2	San Luis Obispo County -----	1
Fowler -----	1	Santa Barbara County:	
Kern County:		Santa Maria -----	2
Bakersfield -----	1	Santa Clara County -----	1
Los Angeles County -----	1	Santa Cruz County -----	1
Long Beach -----	1	Shasta County -----	1
Los Angeles -----	18	Sonoma County -----	1
Pasadena -----	1	Healdsburg -----	1
San Gabriel -----	1	Stanislaus County -----	1
Madera County -----	3	Yolo County -----	1
Merced County:		Yuba County:	
Los Banos -----	1	Marysville -----	1
Modoc County -----	1		
Nevada County -----	1		
Sacramento County:			
Sacramento -----	24		131



**Poliomyelitis (Infantile Paralysis).***Distribution of Cases reported during August, 1915.*

Counties and cities	Number of new cases reported during month
Fresno County:	
Fresno -----	1
Riverside County:	
Corona -----	1
	2

**Epidemic Cerebrospinal Meningitis.***Distribution of Cases reported during August, 1915.*

Counties and cities	Number of new cases reported
Kern County -----	1
Los Angeles County:	
Los Angeles -----	2
Tulare County -----	1
	3

**Scarlet Fever, Measles, Diphtheria, Dysentery and Other Diseases.***Distribution of Cases reported during August, 1915.*

Disease	Total number of new cases reported during the month in the entire State
Scarlet fever -----	86
Measles -----	73
Diphtheria -----	188
Dysentery -----	4
Chickenpox -----	62
Erysipelas -----	22
Gonococcus infection -----	25
Malaria -----	122
Mumps -----	40
Pellagra -----	1
Pneumonia -----	48
Syphilis -----	34
Beri-beri -----	1
Tuberculosis -----	429
Anthrax -----	2
Whooping-cough -----	67
Tetanus -----	2
German measles -----	6
Trachoma -----	5
Leprosy -----	4



## REPORT OF THE BUREAU OF HYGIENIC LABORATORY FOR AUGUST, 1915.

WILBUR A. SAWYER, M.D., Director.

### Antityphoid Vaccination and the Death Rate.

In the year 1914 the death rate from typhoid fever in California was 13.6 per 100,000 people, while in the previous year it was 16.3. This marked decrease in the death rate, 2.7 per 100,000 people, represents the prevention of 76 deaths. To save this number of lives it is necessary to prevent at least ten times as many cases of typhoid fever, as the average mortality in this disease is less than 10 per cent. Therefore the reduction in the typhoid rate in 1914 indicates that over 760 cases of serious illness, including 76 fatal cases, were prevented, an annual improvement much greater than that occurring in the preceding years.

Many factors undoubtedly played a part in this favorable showing, but the new weapon freely used in fighting typhoid fever in 1914 was antityphoid vaccine. It is therefore reasonable to ascribe the sudden increase in the rate of improvement to vaccination.

The typhoid rate is still much too high, and the laboratory is glad to send typhoid vaccine free to any physician who will use it to prevent typhoid fever.

### A Human Case of Rabies in Oakland.

On July 17, 1915, a little girl, six years old, was severely bitten on both hands, in over twelve places, by a rabid dog. The dog's brain was examined at the State Hygienic Laboratory and the diagnosis of rabies was established. On account of the unusual number and the severity of the wounds the outlook was regarded as very serious. The Pasteur treatment was administered at the laboratory in the hope that it would produce immunity rapidly enough to prevent the disease. On August 13th, the symptoms of rabies began and on August 16th, the child died. The Pasteur treatment will save most of the persons bitten by rabid animals, but the extermination of the disease among dogs, by muzzling and other effective measures, is the only way to prevent all human deaths from rabies.

### A Change in the Staff.

For over five years the Director has had charge of the State Hygienic Laboratory, and he now reluctantly leaves the position to assume, on September 4th, the duties of Secretary and Executive Officer of the State Board of Health. In doing so he wishes to express his appreciation of the loyal co-operation of the members of the laboratory staff in the development of the Bureau and to voice his confidence in Dr. J. C. Geiger, who now takes over the administration of the Bureau.



## Division of Biological Examinations.

*Summary of Examinations made in the California State Hygienic Laboratory during the month of August, 1915.*

Condition suspected	Positive	Negative	Inconclusive	Total
<b>Main laboratory at Berkeley:</b>				
Anthrax -----	1	4		5
Diphtheria (diagnosis) -----	16	35	12	63
Diphtheria (release) -----	13	26	4	43
Gonococcus infection -----	21	24		45
Malaria -----		6		6
Rabies -----		5		5
Syphilis (Wasserman test) -----	11	92	12	115
Tuberculosis (sputum examinations) -----	10	27		37
Typhoid (Widal test) -----	10	28	2	40
Typhoid (blood culture) -----		1		1
Typhoid (excreta) -----		3		3
Water pollution -----	53	19	1	73
Miscellaneous -----	1	3	3	7
				443
<b>Northern branch at Sacramento:</b>				
Diphtheria (diagnosis) -----	7	12		19
Diphtheria (release) -----	3	20		23
Malaria -----	1	6		7
Tuberculosis (sputum examinations) -----		10		10
Typhoid (Widal test) -----	3	9	8	20
				79
<b>San Joaquin Valley branch at Fresno:</b>				
Diphtheria (diagnosis) -----	1	7		8
Diphtheria (release) -----		1		1
Malaria -----	1			1
Tuberculosis (sputum examinations) -----	2	7		9
Typhoid (Widal test) -----		9		9
				28
<b>Southern branch at Los Angeles:</b>				
Diphtheria (diagnosis) -----	10	23	2	35
Diphtheria (release) -----	20	21	5	46
Malaria -----		1		1
Tuberculosis (sputum examinations) -----	2	5		7
Typhoid (Widal test) -----	1	20	6	27
				116
<b>Total number of examinations</b> -----				<b>666</b>



**Division of Preventive Therapeutics.***Pasteur Treatment for the Prevention of Rabies by the State Hygienic Laboratory during the month of August, 1915.*

	Treatment commenced	Treatment completed
Main laboratory at Berkeley.....	1	1
Northern branch at Sacramento.....	0	0
San Joaquin Valley branch at Fresno.....	0	0
Southern branch at Los Angeles.....	0	0
Laboratory of Sacramento Board of Health, by deputized bacteriologist .....	0	0
Laboratory of San Francisco Board of Health, by deputized bacteriologist .....	2	0
Laboratory of Los Angeles Board of Health, by deputized bacteriologist .....	2	3
Laboratory of San Diego City Board of Health, by deputized bacteriologist .....	0	0
Laboratory of Letterman General Hospital, Presidio, by deputized bacteriologist .....	0	0
Laboratory of United States Naval Hospital, Mare Island, by deputized bacteriologist.....	0	0
	5	4

*Vaccine for the Prevention of Typhoid Fever Issued by the State Hygienic Laboratory During the Month of August, 1915.*

Number of physicians to whom vaccine was sent.....	12
Number of complete treatments sent.....	223

**Public Health Instruction.***Participation in Instruction in Public Health during August, 1915.*

Main Laboratory at Berkeley:	
Bacteriological instruction outfits sent out.....	0
Bacteriological instruction outfits in use.....	17
Lectures or talks by the director.....	0
Lectures or talks by the assistant director.....	1

**Division of Epidemiological Investigations.***Epidemiological Investigations and other Special Investigations during August, 1915.*

Main Laboratory at Berkeley:	
Special investigations by the director.....	1
An investigation of typhoid fever on a ranch in Sonoma County near Healdsburg.	
Special investigations by the assistant bacteriologist.....	1
Examination of two disinfectants for their phenol coefficients.	



## REPORT OF THE BUREAU OF VITAL STATISTICS.

GEORGE D. LESLIE, Director.

## Nativity of Brides and Mothers.

Apropos of the new registration law of 1915, it may be noted that authorities doubt the completeness of birth reports throughout California under the system first established in 1905, even though birth registration has improved year after year, especially since 1910. Moreover, the deficiency in the registration of births appears to be greater for such events in families of native Californian and other purely American stock than in families of various foreign nationalities.

By the general law of averages, it might be supposed that the proportion of Californian and other American women would be substantially as great among mothers as among brides. Yet comparison of the per cent distribution by nativity of mothers and brides indicates that native daughters and other Americans bear fewer children in proportion to the number of marriages. Conversely, foreign born women contribute relatively more to birth rates than to marriage totals in California.

The following table presents comparative figures for the three elements of the white population in California for 1914 and also, by average per cents, for the five year period, 1909 to 1913. Widowed and divorced brides are omitted in order that the comparison between mothers and brides may be drawn between groups of similar age.

Nativity	Per cent distribution		Difference
	Total mothers	Single brides	
1914—			
Born in California.....	31.0	39.3	—8.3
Born in other states.....	39.3	40.1	—0.8
Foreign born .....	29.7	20.6	+9.1
Annual average, 1909 to 1913—			
Born in California.....	33.4	41.2	—7.8
Born in other states.....	38.0	39.3	—1.3
Foreign born .....	28.6	19.5	+9.1

It appears from this table that in 1914 the per cent of foreign born mothers exceeded that for single brides (single when married) born abroad by 9.1 (29.7 against only 20.6). On the other hand, the per cent for native daughters bearing children fell short of that for Californians marrying by 8.3 (only 31.0 against 39.3), while the per cent for other American mothers was likewise less than for brides by 0.8 (merely 39.3 against 40.1). Similar contrasts are shown also by the annual average per cents for the five year period, 1909 to 1913.

However, these figures are affected somewhat by the deficiency in birth registration under the old law which may be greater for children with parents born in California and other states than for those whose parents were born abroad. Until complete data become available through vigorous enforcement of the new birth registration law in all



parts of the State it would hardly be safe to make any prediction just yet as to whether or not future inhabitants of California will consist more largely of the offspring of recent immigrants than of decendants of old Argonauts and other American stock.

#### Births, Deaths and Marriages for July.\*

*State Totals and Annual Rates.*—The following table shows for California as a whole the birth, death and marriage totals for the current and preceding months in comparison with those for the corresponding months of last year, as well as the annual rates per 1,000 population represented by the totals for the current and preceding months. The rates are based on an estimated midyear population of 2,854,727 for California in 1915, the estimate having been made by the Census Bureau method with slight modifications.

*Birth, Death and Marriage Totals, with Annual Rates per 1,000 Population, for Current and Preceding Months, for California: July.*

Month	Monthly total		Annual rate per 1,000 population 1915
	1915	1914	
July—			
Births -----	4,132	3,929	17.0
Deaths -----	3,067	2,907	12.6
Marriages -----	2,769	2,897	11.4
June—			
Births -----	3,770	3,737	16.1
Deaths -----	3,022	3,087	12.9
Marriages -----	3,359	3,485	14.3

The birth total for July was much greater in 1915 than in 1914, while the death total was not far from the same each year and the marriage total was somewhat less this year than last.

The birth registration for July exceeded the death total by 1,065, or 34.7 per cent.

As to deaths, it may be noted that of 3,067 decedents in July, some 104, or 3.4 per cent, had resided in California less than one year.

*County Totals.*—The first table which follows below shows the monthly birth, death and marriage totals for the principal counties of the State, the list being limited to counties having a population of at least 25,000 according to the Federal Census of 1910. Totals are also shown for San Francisco and the other bay counties (Alameda, Contra Costa, Marin and San Mateo), as well as for Los Angeles and Orange counties together.

*City Totals.*—The second of the following tables gives the birth and death totals for the principal freeholders' charter cities, the list including all chartered cities with a census population of at least 15,000 in 1910. Totals are given likewise for San Francisco in comparison with Oakland, Alameda and Berkeley, the three cities adjoining one another on the east shore of San Francisco Bay, as well as for Los Angeles in comparison with neighboring chartered cities (Long Beach, Pasadena, Pomona, and Santa Monica).

\*NOTE.—The present report is for the month preceding, but one. This order must be followed hereafter, because of the publication of the Bulletin during the early part of the month, before the tabulation of records for the preceding month is completed.



*Birth, Death and Marriage Totals, for Principal Counties: July.*

County	July, 1915		
	Births	Deaths	Marriages
California .....	4,132	3,067	2,769
Counties of more than 25,000 population (1910):			
Alameda .....	388	277	214
Butte .....	47	50	17
Contra Costa .....	59	50	24
Fresno .....	164	78	68
Humboldt .....	63	18	25
Kern .....	44	53	26
Los Angeles .....	1,062	714	676
Marin .....	8	21	51
Orange .....	107	44	140
Riverside .....	29	29	44
Sacramento .....	138	108	67
San Bernardino .....	105	91	85
San Diego .....	125	89	128
San Francisco .....	654	520	580
San Joaquin .....	110	86	50
San Mateo .....	42	35	39
Santa Barbara .....	72	32	26
Santa Clara .....	131	128	93
Santa Cruz .....	48	36	27
Solano .....	45	31	16
Sonoma .....	78	52	46
Tulare .....	64	47	28
Selected groups:			
San Francisco and other bay counties.....	1,151	903	908
Los Angeles and Orange counties.....	1,169	758	816

*Birth and Death Totals, for Principal Cities: July.*

City	July, 1915	
	Births	Deaths
Freeholders' charter cities.....	2,472	1,749
Cities of more than 15,000 population (1910):		
Alameda .....	46	24
Berkeley .....	70	38
Fresno .....	53	28
Long Beach .....	34	24
Los Angeles .....	715	425
Oakland .....	236	164
Pasadena .....	38	34
Riverside .....	26	14
Sacramento .....	105	88
San Diego .....	89	73
San Francisco .....	654	520
San Jose .....	54	33
Stockton .....	59	60
Selected groups:		
San Francisco .....	654	520
Oakland, Alameda and Berkeley.....	352	226
Totals, bay cities.....	1,006	746
Los Angeles .....	715	425
Neighboring cities .....	118	92
Totals .....	833	517



*Cause of Death.*—The following table shows the classification of deaths in California for the current month, in comparison with the preceding month:

*Deaths from Certain Principal Causes, with Proportion per 1,000 Total Deaths, for Current and Preceding Months, for California: July.*

Cause of death	Deaths: July	Proportion per 1,000	
		July	June
All causes -----	3,067	1,000.0	1,000.0
Typhoid fever -----	17	5.5	6.6
Malarial fever -----	3	1.0	0.7
Measles -----	5	1.6	0.7
Scarlet fever -----	2	0.7	0.7
Whooping-cough -----	15	4.9	3.6
Diphtheria and croup -----	19	6.2	9.9
Influenza -----	3	1.0	1.0
Other epidemic diseases -----	13	4.2	3.3
Tuberculosis of lungs -----	366	119.3	128.1
Tuberculosis of other organs -----	68	22.2	20.5
Cancer -----	233	76.0	76.4
Other general diseases -----	113	36.8	38.1
Meningitis -----	24	7.8	3.3
Other diseases of nervous system -----	274	89.3	80.4
Diseases of circulatory system -----	525	171.2	185.0
Pneumonia and broncho-pneumonia -----	147	47.9	65.5
Other diseases of respiratory system -----	41	13.4	14.9
Diarrhea and enteritis, under 2 years -----	72	23.5	28.1
Diarrhea and enteritis, 2 years and over -----	33	10.8	13.2
Other diseases of digestive system -----	191	62.3	47.3
Bright's disease and nephritis -----	193	62.9	72.5
Childbirth -----	27	8.8	9.9
Diseases of early infancy -----	121	39.5	38.4
Suicide -----	100	32.6	32.1
Other violence -----	315	102.7	82.0
All other causes -----	147	47.9	37.1

In July there were 525 deaths, or 17.1 per cent of all, from diseases of the circulatory system and 434, or 14.2 per cent, from various forms of tuberculosis, heart disease thus leading tuberculosis considerably.

Other notable causes of death in July were: Violence, 415; diseases of the nervous system, 298; diseases of digestive system, 296; cancer, 233; Bright's disease and nephritis, 193; diseases of respiratory system, 188; and epidemic diseases, 77.

The deaths from epidemic diseases were as follows: Diphtheria and croup, 19; typhoid fever, 17; whooping-cough, 15; measles, 5, and all other epidemic diseases (including one death in Contra Costa County from plague), 21.



The deaths from the three leading epidemic diseases reported for the month were distributed by counties as follows:

Diphtheria and croup		Typhoid fever		Whooping-cough	
Alameda -----	1	Contra Costa -----	2	Colusa -----	1
Kern -----	1	Glenn -----	1	Fresno -----	2
Los Angeles -----	7	Imperial -----	1	Kern -----	2
Marin -----	1	Kern -----	2	Los Angeles -----	4
San Bernardino -----	1	Los Angeles -----	1	Placer -----	1
San Francisco -----	7	Orange -----	1	San Bernardino -----	1
Stanislaus -----	1	Sacramento -----	2	San Francisco -----	1
Total -----	19	San Francisco -----	2	Santa Clara -----	3
		Santa Clara -----	1	Total -----	15
		Santa Cruz -----	1		
		Siskiyou -----	1		
		Sonoma -----	1		
		Tulare -----	1		
		Total -----	17		

*Geographic Divisions.*—The following table presents data for geographic divisions, including the metropolitan area, or San Francisco and the other bay counties (Alameda, Contra Costa, Marin, and San Mateo), in comparison with the rural counties of Northern and Central California:

*Deaths from Main Classes of Diseases, for Geographic Divisions: July.*

Geographic division	Deaths: July										
	All causes-----	Epidemic diseases-----	Tuberculosis (all forms)-----	Cancer-----	Diseases of nervous system-----	Diseases of circulatory system-----	Diseases of respiratory system-----	Diseases of digestive system-----	Bright's disease and nephritis-----	Violence-----	All other causes-----
The State -----	3,067	77	434	233	298	525	188	296	193	415	508
Northern California ----	341	10	47	22	31	72	20	33	19	44	43
Coast counties -----	160	2	25	9	21	43	12	13	8	11	16
Interior counties -----	181	8	22	13	10	29	8	20	11	33	27
Central California -----	1,677	45	206	130	166	288	121	156	95	262	208
San Francisco -----	520	12	67	47	43	94	44	48	34	70	61
Other bay counties-----	383	6	50	35	37	76	35	29	20	54	41
Coast counties -----	237	7	36	16	32	41	13	20	14	26	32
Interior counties -----	537	20	53	32	54	77	29	59	27	112	74
Southern California ----	1,049	22	181	81	101	165	47	107	79	109	157
Los Angeles -----	714	17	126	61	64	118	38	75	53	64	98
Other counties -----	335	5	55	20	37	47	9	32	26	45	59
Northern and Central California -----	2,018	55	253	152	197	360	141	189	114	306	251
Metropolitan area ----	903	18	117	82	80	170	79	77	54	124	102
Rural counties -----	1,115	37	136	70	117	190	62	112	60	182	149

*Sex, Race and Nativity.*—The proportion of the sexes among the 3,067 decedents in July was: Male, 1,957, or 63.8 per cent; and female, 1,110, or 36.2 per cent.

The race distribution of decedents was: White, 2,885, or 94.1 per cent of all; Japanese, 60; Chinese 55; negro, 51, and Indian, 16.

The 2,885 white decedents were classified by nativity as follows: California, 755, or 26.2 per cent; other states, 1,128, or 39.1 per cent; foreign countries, 927, or 32.1 per cent, and unknown, 75, or 2.6 per cent.



*Sex and Age Periods.*—The following table shows the age distribution, by numbers and per cents of deaths, classified by sex:

*Deaths Classified by Sex and Age Periods, with Per cent by Age Periods for California: July.*

Age period	Deaths			Per cent		
	Total	Male	Female	Total	Male	Female
All ages -----	3,067	1,957	1,110	100.0	100.0	100.0
Under 1 years-----	295	175	120	9.6	8.9	10.8
1 to 4 years-----	118	61	57	3.8	3.1	5.1
5 to 9 years-----	54	33	21	1.8	1.7	1.9
10 to 19 years-----	112	71	41	3.7	3.6	3.7
20 to 29 years-----	270	164	106	8.8	8.4	9.5
30 to 39 years-----	336	237	99	11.0	12.1	8.9
40 to 49 years-----	338	224	114	11.0	11.5	10.3
50 to 59 years-----	395	264	131	12.9	13.5	11.8
60 to 69 years-----	452	296	156	14.7	15.1	14.1
70 years and over-----	697	432	265	22.7	22.1	23.9

This table shows that relatively more females than males died at the age periods under 30 years as well as at 70 years and over, while relatively more males than females died at the age periods from 30 to 69 years.

*Length of Residence.*—The table below gives the number and per cent of decedents, classified by length of residence in California:

*Deaths Classified by Length of Residence in the State, with Per Cents, for California: July.*

Length of residence	Deaths	Per cent
Totals -----	3,067	100.0
Under 1 year-----	104	3.4
1 to 9 years-----	539	17.6
10 years and over-----	1,277	41.6
Life -----	821	26.8
Unknown -----	326	10.6

It appears from this table that 3.4 per cent of all decedents had resided in California less than one year, and altogether 21.0 per cent had lived in the State under ten years. Residents of ten years' standing comprised 41.6 per cent of all decedents, and native Californians who had been here for life comprised 26.8 per cent, the length of residence being unknown for 10.6 per cent of all decedents.



## REPORT OF THE BUREAU OF TUBERCULOSIS FOR AUGUST, 1915.

*Data in Tuberculosis Cases reported during July.*

<b>Age—</b>		<b>Length of residence in California—</b>	
Under 5 years	7	Under 1 year	36
5 to 14	9	1 year	16
15 to 24	80	2 years	19
25 to 34	120	3 years	21
35 to 44	96	4 years	16
45 and over	75	5 years	13
Unknown	22	6 years	9
<b>Sex—</b>		7 years	14
Male	282	8 years	20
Female	123	9 years	11
Unknown	4	10 years	6
<b>Marital condition—</b>		10 to 20 years	56
Single	167	Over 20 years	89
Married	125	Unknown	83
Widowed or divorced	41	<b>Number of persons in family—</b>	
Unknown	76	Families of 2	36
<b>Dwelling—</b>		Families of 3	35
Detached	120	Families from 4 to 14	56
Flat	12	(Average, 6.)	
Tenement	9	<b>Tuberculosis in family—</b>	
Boarding	69	Father	19
Hotel	21	Mother	22
Hospital	18	Brother	16
Other	9	Sister	21
Unknown	151	Husband	1
<b>Housing—</b>		Wife	1
Good	122	Children	1
Fair	80	Others	14
Poor	22	<b>Bacteriological examination—</b>	
Unknown	185	Tubercle bacilli, positive	170
<b>Financial condition—</b>		Tubercle bacilli, negative	23
Independent	40	Not stated	216
Wage-earner	152	<b>Prognosis—</b>	
Indigent	28	Good	40
Unknown	189	Bad	75
<b>Occupational condition—</b>		Doubtful	49
Good	45	Not stated	245
Fair	66	<b>Type—</b>	
Poor	26	Tuberculosis of lungs	387
Unknown	272	Tuberculosis of other organs	50
<b>Nativity—</b>		Duplicated	28
California	72	<b>Totals—</b>	
Elsewhere in United States	131	Cases reported with data	409
Foreign	146	Without above data	78
Unknown	60	Total cases	487
<b>Race or color—</b>		Reported at time of death or later	31
White	313	Total living cases	456
Negro	5		
Indian	0		
Chinese	5		
Japanese	7		
Unknown	79		



County.	Deaths from pulmonary tuberculosis, July	All cases of tuber- culosis reported in July	County.	Deaths from pulmonary tuberculosis, July	All cases of tuber- culosis reported in July
Alameda -----	31	38	Orange -----	6	2
Alpine -----			Placer -----	4	24
Amador -----	1		Plumas -----		
Butte -----			Riverside -----	3	3
Calaveras -----			Sacramento -----	12	7
Colusa -----	3		San Benito -----	3	1
Contra Costa -----	5		San Bernardino -----	17	1
Del Norte -----			San Diego -----	11	7
El Dorado -----	1		San Francisco -----	54	176
Fresno -----	7	4	San Joaquin -----	8	17
Glenn -----			San Luis Obispo -----	2	1
Humboldt -----	2		San Mateo -----	3	
Imperial -----	5	1	Santa Barbara -----	2	1
Inyo -----			Santa Clara -----	18	1
Kern -----	8	1	Santa Cruz -----	5	2
Kings -----	1		Shasta -----	3	
Lake -----		1	Sierra -----		
Los Angeles (city) -----	58	158	Siskiyou -----		1
Rest of county -----	53	33	Solano -----	4	
Lassen -----			Sonoma -----	5	2
Madera -----		1	Stanislaus -----	1	1
Marin -----			Sutter -----		
Mariposa -----			Tehama -----	2	
Mendocino -----	1	1	Trinity -----	1	
Merced -----	1	2	Tulare -----	4	
Modoc -----			Tuolumne -----		
Mono -----			Ventura -----	2	
Monterey -----	1		Yolo -----	1	
Napa -----	9		Yuba -----	2	
Nevada -----	6				



## REPORT OF THE BUREAU OF SANITARY ENGINEERING FOR AUGUST AND SEPTEMBER, 1915.

C. G. GILLESPIE, C.E., Director.

During the first weeks of its existence, this Bureau has been fairly bombarded with requests for advice and assistance on a wide range of sanitary problems, coming from as far as San Diego in the south to Alturas and Eureka in the north, showing the urgent need of such service as this Bureau renders and emphasizing the wisdom of its creation by the last legislature.

By the establishment of better methods of sewage disposal and by the prevention of the pollution of surface waters, the new Bureau hopes to be an important factor in the eradication of water-borne typhoid.

Its first duty is, of course, the perfection of an organization to handle the work of the Bureau. Administrative machinery is already provided and the development of a laboratory for sanitary analyses of water, sewage and garbage is under way. The third arm of the Bureau, engineering assistance, is receiving consideration and should be available within a few weeks. The Bureau has been fortunate in securing the services of Mr. F. Bachmann as Analyst, until recently principal assistant in the laboratory of the Sanitary District of Chicago, in the study of the knottiest sanitary subjects confronting any American city. Prior to that time, Mr. Bachmann served under Dr. Bartow, Director of the Illinois State Water Survey, a body devoted to the same class of work as will be handled by this Bureau.

When fully organized this Bureau will be equipped to investigate sewage nuisances and water pollution; to advise on proposed plans for sewage disposal and water purification and to approve same, as required by the State Health Laws; to advise on improvement of water supplies and to make bacteriological and chemical examinations of water supplies where their fitness for human consumption is at stake, and to make sanitary analyses showing performance of sewage disposal plants and progressive purification of streams.

While perfecting this organization, time has been found to make investigations and give advice pertaining to such sanitary problems as follow:

### Water Works.

*Antioch:* Chlorination as a supplementary treatment to filtration to remove dangerous pollution in the filtered water was advised.

*Eureka:* The extremely unfit supply derived from Elk River is receiving the attention of the authorities, to the end that a better and safer water may be obtained. Measures have been taken to provide a treatment, comprising proper coagulation to make filtration more effective in removing color and turbidity and the supplementary treatment of the water with liquid chlorine to remove the gross pollution to which the water is subject.

*Healdsburg:* Chlorination of the well supplies to remove pollution due to seepage from the Russian River and from town cesspools was



advised as a substitute for the present emergency hypochloriting outfit, which is erratic in its operation and produces frequent tastes in the water.

*Independence School, Hayward:* Emergency hypochloriting was detailed for the disinfection of the well supply infected by house wastes of neighboring dwellings.

#### Stream Pollution.

*Los Gatos Creek:* Investigation of certain sources of pollution complained of on the watershed of the San Jose Water Company showed that the premises are or can be cared for as much as is practicable at small expense, and that in view of the necessity of water disinfection on account of other and uncontrollable sources of pollution, the tremendous cost to eliminate these particular offenders altogether is not warranted.

*Elk River:* Unsanitary and unæsthetic conditions on this stream, the source of Eureka's water supply, were found to be subject to much improvement, but not to complete eradication without abandonment of a large lumber industry and many small farms.

#### Sewage Disposal.

*Walnut Creek:* An excellent design of works, comprising Imhoff tanks and contract beds, is giving considerable offense because of oversize of plant of some two thousand per cent. Recommendations for obtaining the proper effective size have been made.

*Los Gatos:* A modern design of works, comprising Imhoff tanks, sprinkling filters, final settling tanks and sludge drying beds is working improperly because of oversize of plant of some eight hundred per cent and because of no ventilation in housing over the sprinkling filters which occasions such high temperature therein that all biologic action is killed.

*Santa Clara:* The septic tank here is well operated and is producing a remarkably clear effluent for a septic tank. The water is now used for irrigation of alfalfa.

*College Park:* The sewage disposal works are oversized, poorly designed, poorly operated and an extremely offensive nuisance is created by the odors from it, which extend within a half-mile radius. The water of Guadalupe Creek, into which the effluent is deposited, has too small a summer flow to receive the sewage. Taking advantage of a permit to connect the sewerage system with that of San Jose, is the most satisfactory solution of the problem.

*Marysville:* Complaints by its neighbor, Yuba City, due to odors from the sewer farm, were found to be due principally to careless operation, which permitted ponding of the sewage in certain low holes.

In addition to the above detailed investigations and reports, much correspondence was had giving advice on residential and institutional septic tanks and sewage disposal, as well as on certain water supplies, notably that of National City, where a heavy algæ growth in the Sweet-water Lake produced disagreeable tastes and odors. Copper sulphating was advised as the proper algicide treatment.



## REPORT OF THE BUREAU OF FOODS AND DRUGS FOR AUGUST, 1915.

E. J. LEA, Director.

The laboratory has received during the month of August about two hundred samples of foods and drugs. The official samples include a large number of soda water syrups, which were artificially colored, artificially flavored, or contained preservative and did not have this information declared on the labels or by the display of a proper sign. Eighteen samples of chopped meat and pork sausage were examined and nearly half of them were found to be adulterated with sodium sulfite or cereals. One sample of chewing candy contained a considerable amount of paraffin. The unofficial samples were largely from state institutions. One institution submitted a dozen eggs taken from a case purchased as "Fresh California extras, eggs to be clear, sound, sweet and full, of recent production; weight not less than 22 ounces per dozen." On examination two of these eggs were found to conform to the specifications, four were at least five or six weeks old, and the remaining six were upwards of eight weeks old, some of them showing signs of decomposition. A sample of butter submitted by another state institution, and purchased as "Fresh, creamery extras" proved on examination to be a mixture of various lots of ranch butter, some of which was stale, pounded into cubes and labeled "Fresh, creamery extras." A sample of washing ammonia purchased by a state institution for "not less than 18° Baumé," which is equivalent to over 13 per cent ammonia, showed on analysis less than 7 per cent of ammonia. Shipments that are below the specifications are promptly rejected by the state institutions at the dealers' expense.

### Warning Against Quack Doctors.

Information has reached this office that a certain "doctor" practicing temporarily in Santa Barbara, has been selling a medicine labeled "Fluid Extract Serum—\$25.00," for the treatment of diseases of the skin, kidneys, stomach, heart and nervous system.

A bottle containing a small amount of this so-called serum was submitted to the State Laboratory and on examination was found to consist essentially of fluid extract of sassafras, sarsaparilla, cascara sagrada, and potassium bromide. As this medicine was mislabeled it came within the jurisdiction of the California Pure Drugs Act. An inspector of the State Board of Health was sent to investigate the case, but on arriving at Santa Barbara learned that the "doctor" had left and it was rumored he had gone to King City, Monterey County.

The information received was to the effect that a poor woman had been charged twenty-five dollars for a six-ounce bottle of this so-called serum, and that subsequently she bought a second bottle for which she was charged eighteen dollars. This woman was led to believe that the material was a scientifically prepared and valuable serum, which would cure diseases of the nervous system. After taking the medicine she discovered that it gave her no relief and finally the information reached this office.



It is a crime and an outrage for any person to prey upon the public in such a manner, and it seems specially offensive when the victim is a poor woman.

This is an offense which can be handled through the courts if the information is presented to the proper authorities. The State Board of Health will gladly investigate any cases of this character that are brought to its attention.

#### Artificial Color No Longer Permitted in Macaroni, Noodles and Similar Alimentary Pastes.

Attention is especially called to the article on the use of artificial color in alimentary pastes, issued by the Bureau of Chemistry, Washington, D. C., and appearing below. We believe this is a step in the right direction and are very glad to have artificial coloring removed from alimentary pastes. A great many people in this State, as elsewhere, buy artificially colored macaroni, noodles, etc., believing they are of superior quality, even if the artificial color is declared on the label. It frequently happens that the statement indicating the use of artificial color is inconspicuous or blurred in such a manner as to be almost illegible. Furthermore, a great many people do not realize that the artificial color is used to make the product appear to be of better quality.

#### Service and Regulatory Announcements.

The following Service and Regulatory Announcements have been issued by the Bureau of Chemistry, Department of Agriculture, Washington, D. C., under date of August 18, 1915, and will no doubt be of interest in this State:

125. *Extending time for the use of labels under the conditions prescribed in letter 49, S. R. A., Chem. 6, p. 417.*

In order to prevent the unnecessary destruction of labels and cartons which were printed before the issuance of Food Inspection Decision 154, the department has decided to extend further the time for the use of such labels under the conditions given in letter 49, S. R. A., Chem. 6. Prior to January 1, 1916, it will not recommend proceedings solely upon the charge that the statement of quantity of contents on the package, if otherwise satisfactory, is not in terms of the largest unit in the package, provided that upon investigation it is found that the labels or cartons bearing such statements were printed prior to May 11, 1914, and plainly indicate an honest attempt to comply with the provisions of the law.

126. *Notice to importers regarding relabeling.*

The attention of the bureau has been called to the fact that certain classes of foods and drugs, misbranded within the meaning of the Food and Drugs Act, continue to be offered for importation into this country, notwithstanding the fact that previous shipments of identical articles have been detained on arrival and released to importers only after they have been relabeled so as to cure the false and misleading statements or other misbranding on the labels.

Hereafter when misbranded foods or drugs are offered for importation and it appears that three previous shipments of identical articles, bearing identical labels and made by the same manufacturer, have been detained and released only upon relabeling, recommendation will be made to customs officials that the articles be refused admission. This practice will be followed whether or not the importer offering the articles for entry imported any one of the previous shipments which were detained and released after relabeling.

127. *Notice to dealers in and packers of sorghum sirup.*

It is a customary trade practice for dealers in and packers of sorghum sirup to send out barrels to the rural producers to be used in making return shipments of sirup. It has come to the attention of the bureau that these barrels frequently contain residues of various kinds of sirups that have been previously contained therein. As a result the sorghum sirup placed in the barrels is mixed with more or less foreign sirup. As such an admixture of foreign sirup may render the packer,



shipper, or dealer liable to prosecution under the Food and Drugs Act, this notice is issued for the purpose of calling attention to the fact that the barrels should be properly cleaned before they are sent out to the rural producers.

*128. Use of lactic acid in food products.*

Inquiry has been made as to whether there is any objection under the Food and Drugs Act to the use of lactic acid in food products. It is the opinion of the bureau that the use of lactic acid in moderate amounts is not objectionable if it is free from deleterious impurities, among which lead may be specifically mentioned.

*129. Use of artificial color in alimentary pastes.*

The bureau has given careful consideration to the use of artificial color in macaroni, spaghetti, vermicelli, noodles, and similar alimentary pastes. According to the provisions of section 7, subdivision 4, in the case of food, of the Food and Drugs Act, a food product is adulterated if it be mixed, colored, powdered, coated, or stained in a manner whereby inferiority is concealed.

The question as to whether damage or inferiority is concealed is one of fact to be determined in the case of each food product which is artificially colored. It is the opinion of the bureau that the addition of artificial color to alimentary pastes as usually practiced results in concealing inferiority and that this form of adulteration can not be corrected by the declaration of the artificial color.

*130. Use of the terms "potato flour," "rice flour," "cassava flour," and "tapioca flour."*

It has come to the attention of this bureau that such products as potato starch, rice starch, and cassava starch are often designated by the terms "potato flour," "rice flour," and "cassava flour" or "tapioca flour." In the opinion of this bureau the term "flour" when applied to potato or rice or cassava products has the same meaning as when applied to other products, that is, a finely divided or powdered product containing proteids, fat, fiber, and ash constituents from the edible portions of potato, rice, or cassava, and not such a product containing the starch alone.

*131. Wormy and fly-infested horse beans.*

Investigation by the bureau has shown that there exists a practice of shipping in interstate commerce wormy or weevil-infested horse beans, broad beans (*Vicia faba*). These horse beans are used almost entirely for food purposes. This infestation does not occur in transit, but during the development of the bean, and can be easily detected by examination of the beans before shipment. The bureau will regard as in violation of the Food and Drugs Act all horse beans shipped in interstate commerce or offered for importation into the United States which are so infested to any material extent.

*132. Unpolished and uncoated rice.*

There appears to be a widespread popular misunderstanding regarding the meaning of the phrases "unpolished rice" and "uncoated rice."

The polishing process, as understood in the Orient and by the best authorities in this country, refers to the rubbing or scouring of the hulled grain in various machines by which most of the bran coat or pericarp is removed. The resulting product is often coated to improve its appearance. The coating process consists in the application of glucose, talc, or other foreign material to the surface of the already polished grain. The people of many localities in Asia use true unpolished rice; that is, rice from which the hulls and part, but not all, of the bran coat have been removed. Such an article is sold to a slight extent in the United States, but the market supply is composed principally of polished rice, most of which has also been coated with talc or glucose or other coating material. Polishing removes a considerable portion of the protein, fat, fiber, and inorganic salts, as well as flavor, from the grain.

The rice question has aroused considerable interest in this country because it is believed by many investigators that the disease known as beriberi, which is common in the Orient, is due to the consumption, as the main article of diet, of rice that has had the bran coat completely removed. Rice bran is an important source of certain elements which are believed to be efficacious in the treatment of beriberi. Those who eat a varied diet, as is the case with most people in the United States, obtain these elements from other foods.

The phrase "unpolished rice" will be held by the bureau to mean only rice which still retains a considerable portion of the bran coat or pericarp. Natural brown rice is properly designated as "unpolished rice," but the phrase "unpolished rice" is not synonymous with "uncoated rice." Rice from which all the pericarp has been removed but which has not been put through a finishing process by the addition of glucose, talc, or other foreign material, is a polished, uncoated rice. It should not be designated as "unpolished rice."

Rice which has been put through a finishing process by the addition of glucose, talc, or other foreign material should bear a statement to this effect. Attention is called to Food Inspection Decision 67 on "The Polishing and Coating of Rice."



133. *Smutty barley.*

The attention of the bureau has been called to the fact that there exists in the trade a practice of treating smutty barley with lime, during the process of screening and handling, and then mixing the treated barley with a clean barley free from smut before sale or shipment. It has been found that this liming process does not remove all of the smut and serves to conceal the smut remaining on the treated grain. The department is of the opinion that this treatment of smutty barley and subsequent mixing with a clean barley conceals inferiority, and the department will regard as adulterated, within the meaning of the Food and Drugs Act, any smutty barley treated in a manner whereby damage or inferiority is concealed.

134. *Methods of determining "cut-out" weights of canned oysters and clams.*

Inquiry has been made regarding the duration of the time of draining to which canned oysters and canned clams should be subjected before determining the "cut-out" weights as specified in letters 2 and 3 of S. R. A., Chem. 1.

The procedure adopted by the bureau for draining in order to determine the "cut-out" or drained weight is as follows:

Make a circular cut almost around the top of the can, push the cut top back into its original position, invert, and allow the contents to drain through the circular opening for *one minute*. Pour the liquid through a colander and return to the can any weighable particles of solids which have been carried away by the liquid. The openings in the colander should not exceed 3-16 inch in diameter.

135. *Tentative standards for marjoram leaves and thyme leaves.*

The bureau is at present investigating the question of proper standards for marjoram leaves and thyme leaves. Pending the results of these investigations the following tentative standards have been adopted as a guide for the officials of the department in the enforcement of the Food and Drugs Act:

Marjoram leaves (chiefly leaves, with flowering tops):

Ash	Not more than 16	per cent.
Acid-insoluble ash	Not more than 4.5	per cent.
Stems, including petioles, and foreign material	Not more than 10	per cent.
Ethereal oil	Not less than 0.6	per cent.

Thyme leaves (chiefly leaves, with flowering tops):

Ash	Not more than 14	per cent.
Acid-insoluble ash	Not more than 4	per cent.
Stems, including petioles, and foreign material	Not more than 15	per cent.
Ethereal oil	Not less than 1	per cent.

136. *Use of Sinapis (Brassica) cernua in mustard preparations.*

A sample of a product designed as Chinese mustard seed has recently been submitted to the bureau with a request to be advised whether this product may be used in mustard preparations. An examination shows that the seeds in question are those of *Sinapis (Brassica) cernua*, which, together with *Brassica nigra*, is recognized as mustard by the Japanese Pharmacopœia. *Sinapis cernua* is grown both in China and in Japan and comes upon the market as Chinese or Japanese mustard seed. It develops about the same amount of the volatile oil as *Brassica nigra*. This oil has properties similar to those of the oil found in *Brassica nigra*.

In view of these facts, no objection will be made, for the present at least, to its importation for use in the preparation of condiments. In case it appears on further investigation that importations of the article should be restricted or prohibited, public notice will be given by means of a Service and Regulatory Announcement, or otherwise.

In connection with the use of the name "Chinese mustard seed" or "Japanese mustard seed" on *Sinapis cernua*, the requirements of regulation 19(b) of the rules and regulations for the enforcement of the Food and Drugs Act should be borne in mind.

137. *The labeling of substandard drugs.*

Section 7 of the Food and Drugs Act states that "an article shall be deemed to be adulterated: In case of drugs: ----- If, when a drug is sold under or by a name recognized in the United States Pharmacopœia or National Formulary, it differs from the standard of strength, quality, or purity, as determined by the test laid down in the United States Pharmacopœia or National Formulary official at the time of investigation: *Provided*, That no drug defined in the United States Pharmacopœia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the bottle, box, or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopœia or National Formulary."

In spite of the fact that this paragraph of the act is plain and definite, the bureau receives a large number of letters raising the question whether interstate shippers of drugs which are not in compliance with the requirements of the United States Pharmacopœia are required to mark such drugs with their actual strength both in large and small packages.



Under the quoted provision of the law, each drug, sold under or by a name recognized either in the United States Pharmacopœia or in the National Formulary, when shipped interstate or otherwise brought within the Federal jurisdiction, should comply with the standard of strength, quality, or purity as determined by the tests laid down for it in the Pharmacopœia or Formulary, or should have its own standard of strength, quality, or purity plainly declared on its container.

**138. Blackberry Cordial.**

The bureau holds that only the product prepared according to the directions for blackberry cordial as prescribed in the National Formulary and conforming to the standard of strength, quality, and purity therein specified may properly be designated "blackberry cordial." A product labeled "blackberry cordial" which differs from the standard of strength, quality, or purity of the National Formulary preparation will be considered adulterated within the meaning of the Federal Food and Drugs Act, unless it bears upon the container a plain statement of its actual standard of strength, quality, or purity. A declaration of the quantity or proportion of alcohol is required upon all packages of blackberry cordial.

**139. Cinchona (China) bitters.**

In the opinion of the bureau, the term "cinchona (China) bitters" may be applied to preparations for which no therapeutic claims are made, other than that they are stomachics, provided they contain enough cinchona alkaloids to give a bitter taste. However, such preparations are not entitled to bear statements that they are of value in the treatment of malaria or other diseases, unless an ordinary portion of such a compound contains a medicinal dose of those cinchona alkaloids which are valuable in the treatment of the specified diseases.

**140.—Buchu Gin.**

It is the opinion of the bureau that gin is of no value in the treatment of diseases of the genito-urinary system, and that, in fact, it is contra-indicated in all genito-urinary conditions for which buchu is sometimes prescribed. It is further the opinion of the bureau that the addition of buchu, in any form, to gin does not make a mixture of any value in the treatment of genito-urinary diseases. The bureau will, therefore, regard as misbranded, under section 8 of the Food and Drugs Act, any compound of buchu and gin that bears upon its label any therapeutic claim with reference to genito-urinary diseases.



*Cases Referred to District Attorneys August 7, 1915.*

Name of article	Offense	Accused dealer	Locality
Sweet relish -----	Mislabeled. Sample contains benzoates not declared on label -----	J. M. Halverson, San Leandro	San Leandro.
Essence peppermint -----	Adulterated and mislabeled. Below standard -----	Coffin-Redington -----	San Francisco.
Pork sausage -----	Adulterated. Contains sulphur dioxide, which is prohibited in food products -----	Fulton Meat Market; Christopher & Sons -----	Chico.
Salt peter -----	Adulterated and mislabeled. Other materials substituted -----	Carl Graf -----	Los Angeles.
Banana syrup -----	Mislabeled. Coal-tar color added, not declared on label -----	Dunis and Carusato; The Candy Shop -----	San Francisco.
Cherry syrup -----	Mislabeled. Sample contains added artificial color, not declared on label -----	J. B. Tufts -----	Davis.
Orange syrup -----	Mislabeled. Coal-tar color added, not declared on label -----	Gruenhagen's Confectionery -----	San Francisco.
Cider vinegar -----	Adulterated and mislabeled. Other materials substituted -----	Friedenbach Bros. -----	Fortuna.
Coffee -----	Adulterated and mislabeled. Chicory added -----	Palace Cafe; P. Hontas -----	Hayward.
Cider vinegar -----	Adulterated. Deficient in acetic and phosphoric acids -----	Jas. Richards & Sons -----	Placerville.



The following notices of judgment have been received from the United States Department of Agriculture, Washington, D. C.:

Bromalgine	-----	3850
Bitters	-----	3888
Butter	-----	3891
Camphor, spirits of	-----3861, 3862, 3863, 3860,	3859
Corn	-----	3840
Coffee,	-----3899,	3897
Confectionery	-----3880, 3871,	3873
Cordial	-----	3884
Cough balsam	-----	3815
Cranberry sauce	-----	3875
Cream	-----3856, 3858, 3851, 3865, 3855, 3846, 3844,	3845
Currants	-----	3838
Eggs, dessicated, dried, frozen	-----3835, 3806, 3807, 3809, 3813, 3825, 3828,	3834
Extracts—Orange, cinnamon, lemon, pep- permint, vanilla	-----3811, 3881, 3890, 3885, 3894, 3895,	3886
Feed—Oats, poultry, purity milk-maker	-----3819, 3820, 3821,	3887
	3822, 3823, 3826, 3827, 3829, 3830, 3831, 3832, 3816, 3867, 3893,	3887
Fish, shrimp	-----	3810, 3817
Jam, blackberry	-----	3870, 3875
Jelly, apple	-----	3874
Ketchup, tomato pulp	-----3824, 3803, 3804, 3808, 3812,	3805
Lard	-----	3857
Liniment	-----	3802
Macaroni	-----	3879, 3814
Milk	-----3852, 3866, 3853, 3864, 3854, 3847, 3848, 3849, 3843, 3842,	3841
Oats	-----	
Ointment	-----	3883
Peaches	-----	3838
Prunes	-----3838,	3837
Sausage	-----	3839
Sirup, cane and maple	-----3892,	3898
Tablets, acetanilid, acetphenetidin, antikamnia	-----,3883,	3868
Tea, Alpine herb	-----	3801
Vinegar	-----3872, 3877, 3878, 3882, 3889, 3896, 3900,	3836
Water, lithia	-----3869,	3876
Wine	-----	3833



## REPORT OF THE BUREAU OF REGISTRATION OF NURSES FOR AUGUST, 1915.

ANNA C. JAMMÉ, R.N., Director.

Arrangements have been made with the California State Civil Service Commission whereby those who are successful in the examinations for Registered Nurse held by this Board October 12-13, 1915, will be considered as having passed the written portion of the civil service examination for nurse of the same date. Those who pass the written test will be eligible for the civil service oral examination which will be held after the results of the written test are known.

The State employs registered nurses in the five state hospitals for the insane, the Sonoma State Home, the Veterans' Home, the Whittier State School, the Preston School of Industry, and the California School for Girls. Entrance salaries range from \$50 to \$55 per month, with room, board and laundry in addition.

The examination is open to all American citizens residing in California who are registered nurses in the State of California, or who are candidates for the examination for registered nurse to be given by the State Board of Health on October 12-13, 1915, and who are 20 years of age or over on the date of the examination.

The subjects for the examination will be as follows::

	Relative weight
1. Written examination .....	70
This will include questions on the following subjects:	
Anatomy and physiology.	Children's diseases.
Hygiene.	Contagious diseases.
Bacteriology.	Medical nursing.
Materia medica.	Surgical nursing.
Dietetics.	Obstetrical nursing.
Urinalysis.	Ethics.
2. Training and experience in nursing .....	10
3. Oral examination .....	20
Total .....	100

The written examination will be given in four sessions of three hours each, on the dates announced above.

The subject of training and experience in nursing will be rated upon the statements of the candidates in their application blanks.

Candidates who fail to secure at least 70 per cent in the oral examination, and a general average rating of at least 70 per cent, will be considered as having failed in the examination.

Persons desiring to enter this examination should apply at once to the State Civil Service Commission, Forum Building, Sacramento, for application form No. 2, stating the name of the examination for which they are applying. Completed applications must be filed with the Commission on or before October 7, 1915, in order to be considered for this examination.



## LIST OF COUNTY AND CITY HEALTH OFFICERS.

### Alameda County—

Dr. C. L. McKown.....Niles  
 Alameda.....Dr. A. Hieronymus  
 Albany.....Dr. F. R. Woolsey  
 Berkeley.....Dr. J. J. Benton  
 Emeryville.....Dr. A. T. Drennan  
 Hayward.....Dr. F. W. Browning  
 Livermore.....Dr. J. K. Warner  
 Oakland.....Dr. R. M. Higgins  
 Piedmont.....George T. Burtchaell  
 Pleasanton.....Dr. J. Hal Cope  
 San Leandro.....Dr. Luther Michael

### Alpine County—

Mr. Fred S. Dunlap.....Markleeville

### Amador County—

Dr. E. E. Endicott.....Jackson

Jackson.....George Hambric

Sutter Creek.....W. A. Burres

### Butte County—

Dr. L. L. Thompson.....Gridley

Biggs.....

Chico.....W. H. Marshall

Gridley.....Dr. L. L. Thompson

Oroville.....Dr. W. F. Gates

### Calaveras County—

Dr. George F. Pache, Angels Camp

Angels Camp.....Dr. E. W. Weirich

### Colusa County—

Dr. C. A. Poage.....Colusa

Colusa.....Dr. C. A. Poage

### Contra Costa County—

Dr. W. S. George.....Antioch

Antioch.....Dr. W. S. George

Concord.....Dr. F. F. Neff

Hercules.....Dr. M. L. Fernandez

Martinez.....Dr. Edwin Merrithew

Pinole.....Dr. M. L. Fernandez

Pittsburg.....Dr. F. S. Gregory

Richmond.....Dr. Chas. R. Blake

Walnut Creek.....Dr. C. R. Leech

### Del Norte County—

Dr. E. M. Fine.....Crescent City

Crescent City.....Dr. E. M. Fine

### El Dorado County—

Dr. L. M. Leisenring.....Placerville

Placerville.....P. J. Hall

### Fresno County—

Dr. G. L. Long.....Fresno

Clovis.....Dr. M. S. McMurtry

Coalinga.....Dr. C. W. Hutchison

Firebaugh.....Dr. H. J. Greven

Fowler.....Dr. W. T. Crawford

Fresno.....Dr. A. H. Sweeney

Kingsburg.....Dr. J. A. Gillespie

Reedley.....Dr. J. D. Hare

Sanger.....Dr. Thos. F. Madden

Selma.....Dr. O. H. Steinwand

### Glenn County—

Dr. F. M. Lawson.....Willows

Orland.....Dr. D. L. Martin

Willows.....Dr. F. X. Tremblay

### Humboldt County—

Dr. Carl T. Wallace.....Eureka

Arcata.....Dr. G. W. McKinnon

Blue Lake.....Dr. O. P. Floreth

Eureka.....Dr. L. A. Wing

Ferndale.....Dr. J. A. Lane

Fortuna.....Dr. Orville Rockwell

### Imperial County—

Dr. F. H. Carter.....El Centro

Brawley.....Dr. Eugene Le Baron

Calexico.....Dr. H. C. Richter

El Centro.....Dr. F. H. Carter

Holtville.....J. C. Nale

Imperial.....Dr. C. E. Standlee

### Inyo County—

Dr. I. J. Woodin.....Independence

Bishop.....Dr. C. E. Turner

### Kern County—

Dr. C. A. Morris.....Bakersfield

Bakersfield.....Dr. P. J. Cuneo

Delano.....

Maricopa.....Dr. H. N. Taylor

McKittrick.....Dr. W. H. Cook

Taft.....Dr. F. C. Galehouse

Tehachapi.....Dr. N. J. Brown, Jr.

### Kings County—

Dr. C. L. Scott.....Hanford

Corcoran.....Floyd Burns

Hanford.....Dr. C. L. Scott

Lemoore.....Dr. W. P. Byron

### Lake County—

Dr. W. E. Upton.....Kelseyville

Lakeport.....J. G. West

### Lassen County—

Dr. W. E. Dozier.....Susanville

Susanville.....Dr. E. S. Drucks

### Los Angeles County—

Dr. J. L. Pomeroy.....Los Angeles

Alhambra.....Dr. F. E. Corey

Arcadia.....Dr. Chas. D. Gaylord

Avalon.....K. W. Hidy

Azusa.....Dr. L. W. Atkinson

Beverly Hills.....Dr. Lowell G. Frost

Burbank.....Dr. E. H. Thompson

Claremont.....Dr. F. W. Thomas

Compton.....J. W. Stone

Covina.....Dr. J. D. Reed

Eagle Rock.....Dr. C. H. Phinney

El Monte.....Dr. S. L. Corpe

Glendale.....Dr. R. E. Chase

Glendora.....Dr. C. H. Wood

Hermosa Beach.....B. F. Brown

Huntington Park.....Dr. W. Thompson

Inglewood.....Dr. H. A. Putnam

Long Beach.....Dr. R. L. Taylor

Lordsburg.....Dr. J. E. Hubble

Los Angeles.....Dr. L. M. Powers

Manhattan Beach.....Llewellyn Price

Monrovia.....Dr. J. L. Pomeroy

Pasadena.....Dr. Stanley P. Black

Pomona.....Dr. N. J. Rice

Redondo Beach.....Dr. D. R. Hancock

San Fernando.....Dr. Benj. B. Ward

San Gabriel.....Dr. Ruth Purcell

San Marino.....

Santa Monica.....Dr. Chas. G. Shipman

Sawtelle.....Dr. A. B. Hromadka

Sierra Madre.....Dr. R. H. Mackerras

South Pasadena.....Dr. C. F. Metcalf

Tropico.....Dr. Wm. C. Mabry

Venice.....Dr. W. M. Kendall

Vernon.....Dr. O. R. Stafford

Watts.....Dr. E. J. Riche

Whittier.....Dr. W. H. Stokes

### Madera County—

Dr. L. St. John Hely.....Madera

Madera.....Dr. L. St. John Hely

### Marin County—

Dr. J. H. Kuser.....Novato

Belvedere.....Dr. Florence Scott

Larkspur.....Dr. J. E. McCue

Mill Valley.....James V. Chase

Ross.....Dr. Harry O. Hunt

San Anselmo.....Dr. O. W. Jones

San Rafael.....Dr. W. J. Stone

Sausalito.....Dr. A. H. Mays

### Mariposa County—

Dr. J. M. Hicks.....Mariposa

### Mendocino County—

Dr. Judson Liftchild.....Ukiah

Fort Bragg.....Dr. L. C. Gregory

Point Arena.....N. A. McCallum

Potter Valley.....W. T. Eddie

Ukiah.....Dr. J. Liftchild

Willits.....Dr. F. C. Gunn